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(54) **SYSTEMS, METHODS AND MEDIA FOR A CHRONICLE BLOCKCHAIN AND CONSENSUS BY CONFERENCE PROOF OF STAKE PROTOCOL**

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(72) Inventors: **William J. Ziebell**, Eagle, ID (US); **Angela M. Ziebell**, Eagle, ID (US)

(73) Assignee: **Pinx, Inc.**, Eagle, ID (US)

(21) Appl. No.: **18/227,244**

(22) Filed: **Jul. 27, 2023**

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G06F 21/62	(2006.01)
H04L 67/53	(2006.01)

(52) **U.S. Cl.**

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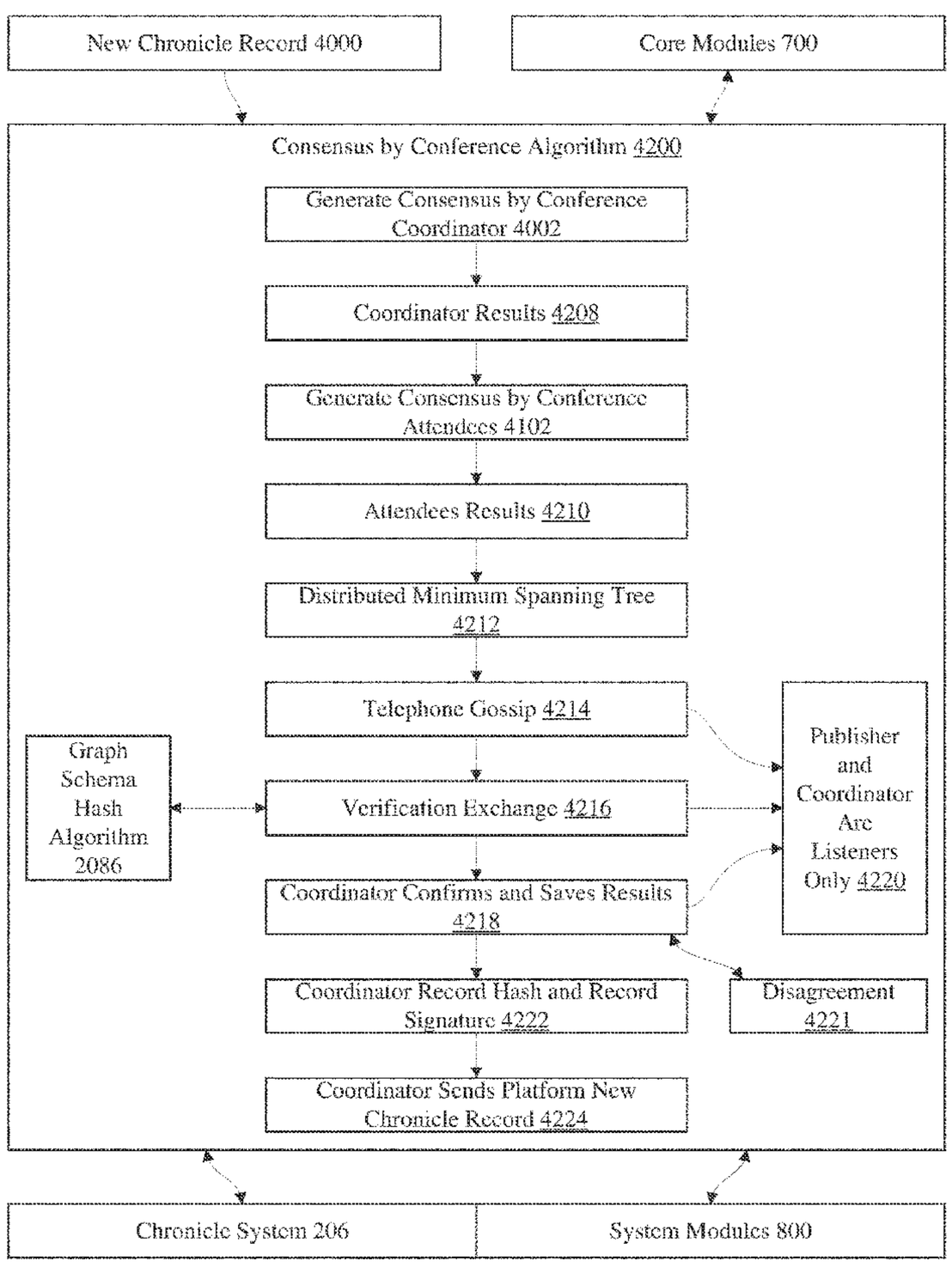
(57) **ABSTRACT**

Provided herein are exemplary distributed architectures including a platform system communicatively coupled to a network, a social media system communicatively coupled to the network and configured for interaction by one or more users, and a social media application communicatively coupled to the network and configured for interaction by one or more users. Further exemplary embodiments include a third party service communicatively coupled to the network, a public auditor communicatively coupled to the network, and a public archivist communicatively coupled to the network. The one or more users may include any of individuals, businesses, charities and non-profit organizations, and government organizations.



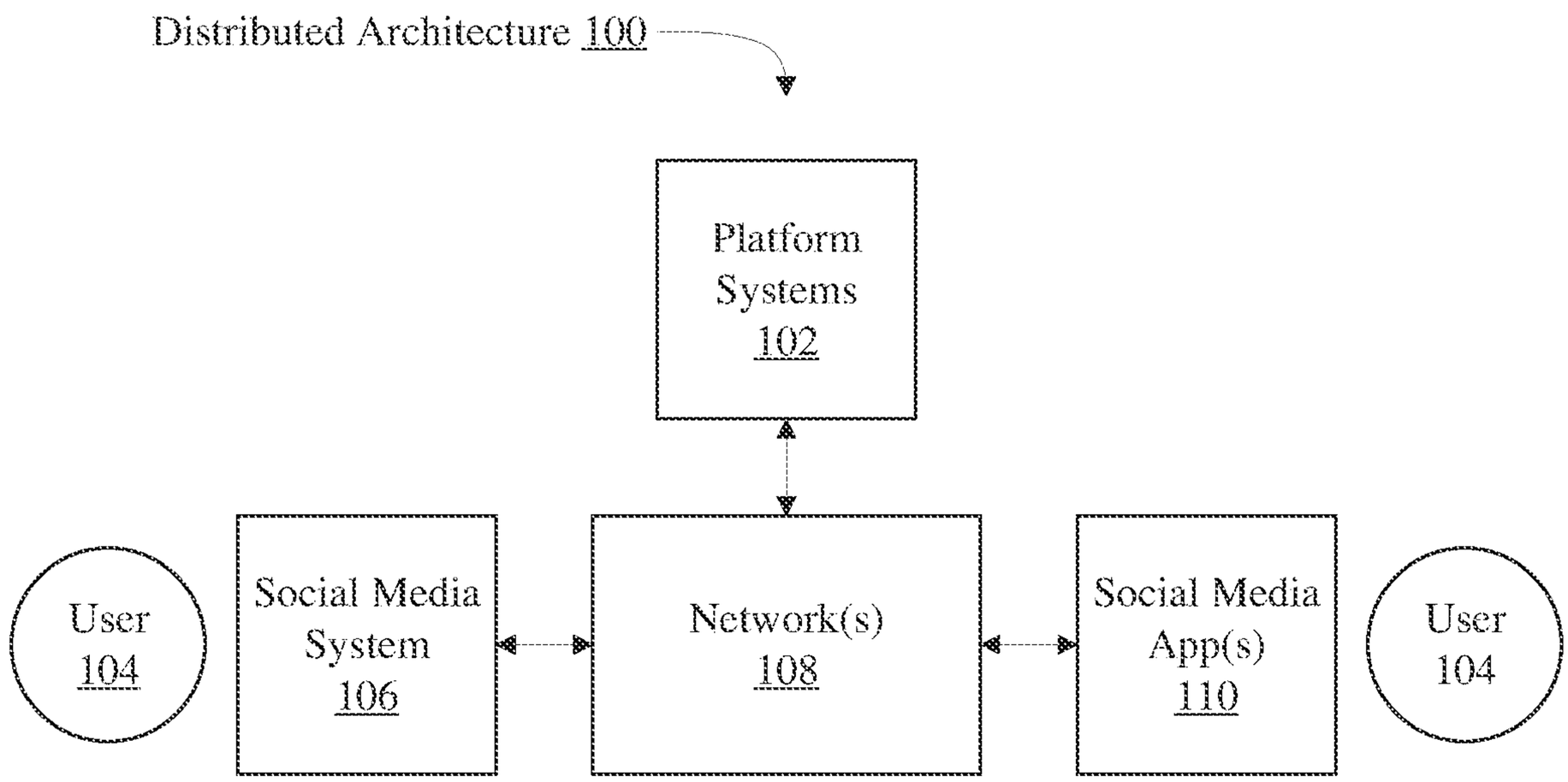

Distributed Architecture 100
Platform Systems 102
User 104
Social Media System 106
Network(s) 108
Social Media App(s) 110
User 104

FIGURE 1

Platform Systems 102

API System 200	Trending System 244
Archive System 202	Endorsement System 246
Audit System 204	Ad System 248
Chronicle System 206	Content Verification System 250
Directory System 208	Index System 252
Identity System 210	
Ledger System 212	
Onboarding System 214	
Payment System 216	
Platform Management System 218	
Search System 220	
Third Party Systems 222	
Account System 224	
Telemetry System 226	
User Verification System 228	
Connection System 230	
Consensus System 232	
SDK System 234	
AI System 236	
Analytics System 238	
Machine Learning System 240	

FIGURE 2

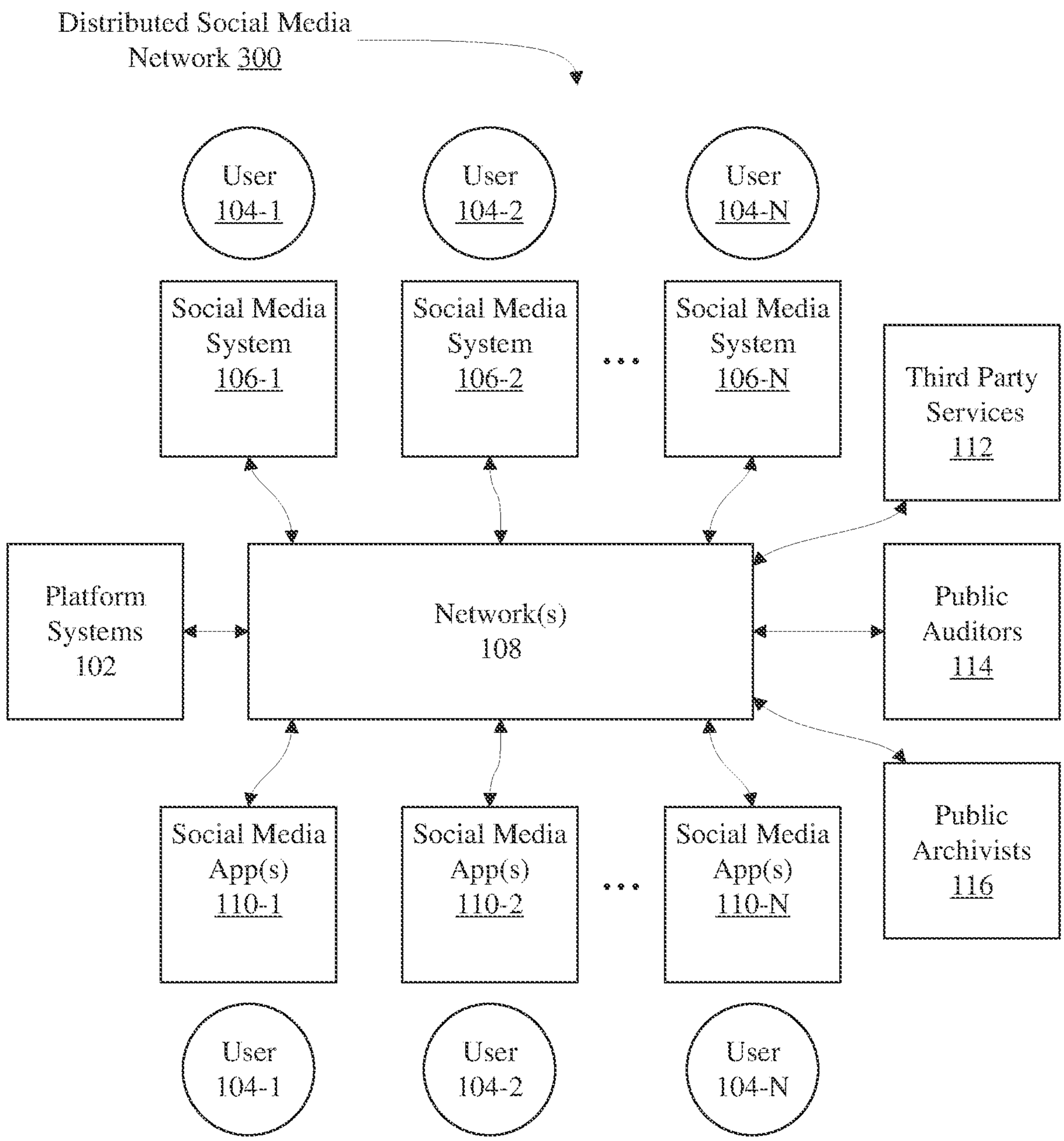

Distributed Social Media Network 300
User 104-1
User 104-2
User 104-N
Social Media System 106-1
Social Media System 106-2
Social Media System 106-N
Third Party Services 112
Platform Systems 102
Network(s) 108
Public Auditors 114
Public Archivists 116
Social Media App(s) 110-1
Social Media App(s) 110-2
Social Media App(s) 110-N
User 104-1
User 104-2
User 104-N

FIGURE 3

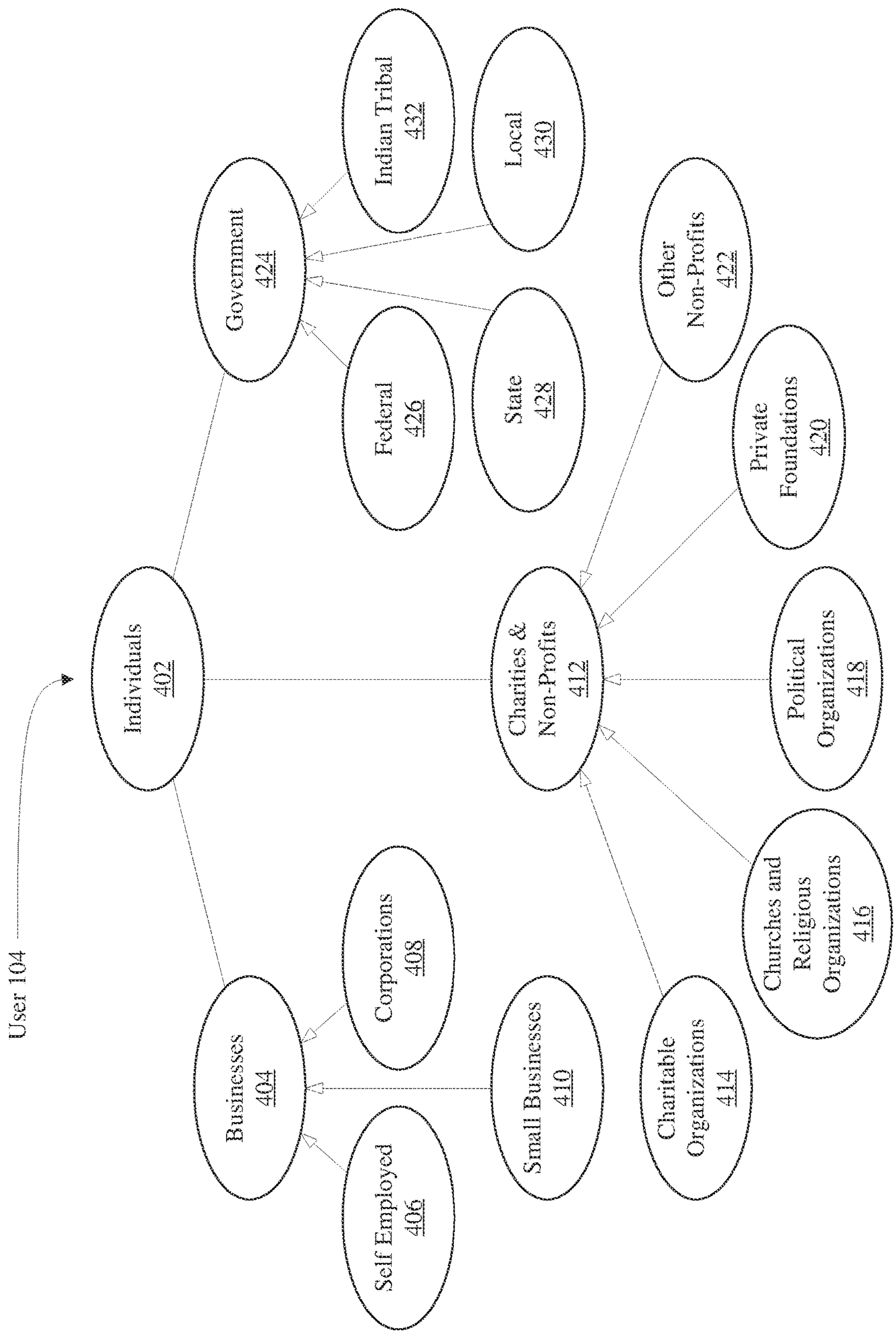

User 104
Individuals 402
Businesses 404
Self Employed 406
Corporations 408
Small Businesses 410
Charities & Non-Profits 412
Charitable Organizations 414
Churches and Religious Organizations 416
Political Organizations 418
Private Foundations 420
Other Non-Profits 422
Government 424
Federal 426
State 428
Local 430
Indian Tribal 432

FIGURE 4

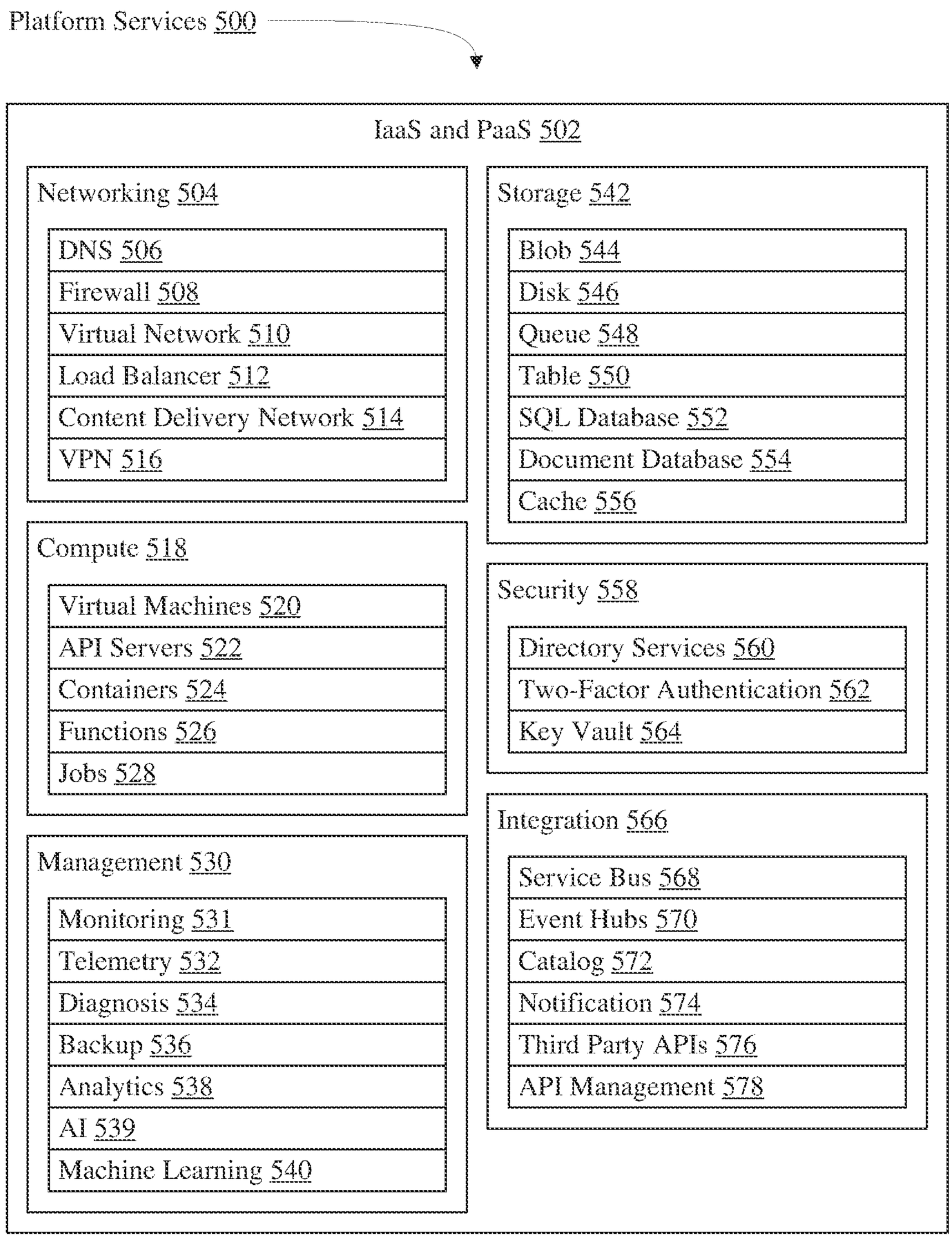

Platform Services 500
IaaS and PaaS 502
Networking 504
DNS 506
Firewall 508
Virtual Network 510
Load Balancer 512
Content Delivery Network 514
VPN 516
Compute 518
Virtual Machines 520
API Servers 522
Containers 524
Functions 526
Jobs 528
Management 530
Monitoring 531
Telemetry 532
Diagnosis 534
Backup 536
Analytics 538
AI 539
Machine Learning 540
Storage 542
Blob 544
Disk 546
Queue 548
Table 550
SQL Database 552
Document Database 554
Cache 556
Security 558
Directory Services 560
Two-Factor Authentication 562
Key Vault 564
Integration 566
Service Bus 568
Event Hubs 570
Catalog 572
Notification 574
Third Party APIs 576
API Management 578

FIGURE 5

Platform Modules 600	
Compute Module 602	Networking Module 608
Integration Module 604	Security Module 610
Management Module 606	Storage Module 612

FIGURE 6

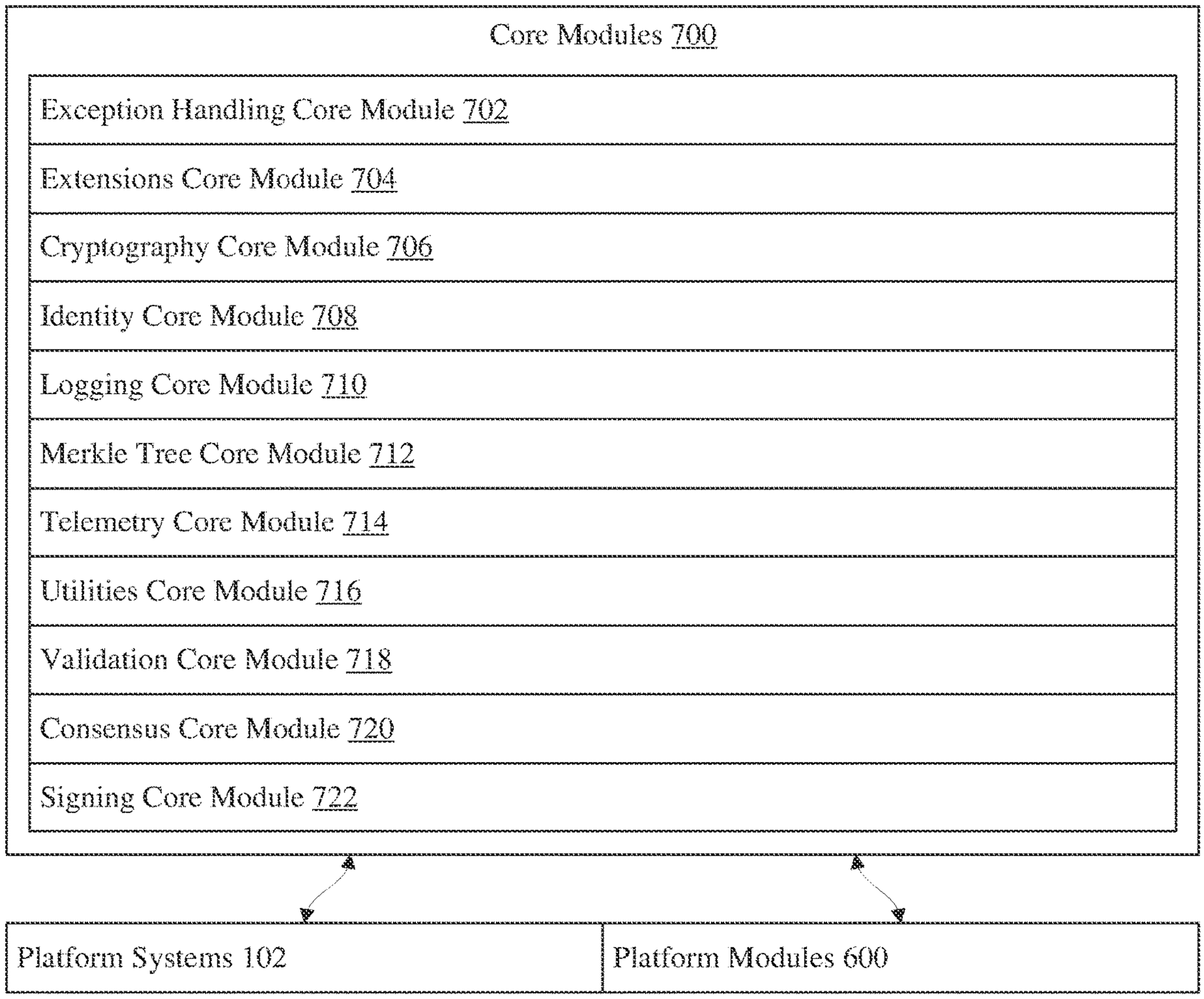
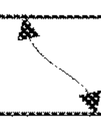

Core Modules 700
Exception Handling Core Module 702
Extensions Core Module 704
Cryptography Core Module 706
Identity Core Module 708
Logging Core Module 710
Merkle Tree Core Module 712
Telemetry Core Module 714
Utilities Core Module 716
Validation Core Module 718
Consensus Core Module 720
Signing Core Module 722
Platform Systems 102
Platform Modules 600

FIGURE 7

System Modules 800

Ad System Modules 802	Search System Modules 840
AI System Modules 804	Subscription System Modules 842
Analytics System Modules 806	Third Party System Modules 844
Archive System Modules 808	Wallet System Modules 846
Audit System Modules 810	Endorsement System Modules 848
Chronicle System Modules 812	Compliance System Modules 850
Connection System Modules 814	Consensus System Modules 852
Content System Modules 816	Notary System Modules 854
Directory System Modules 818	Certified Email System Modules 856
Distribution System Modules 820	Workflow System Modules 858
Identity System Modules 822	SDK System Modules 860
Ledger System Modules 824	Copyright System Modules 862
Licensing System Modules 826	Rhetoric System Modules 864
Machine Learning System Modules 828	User Verification System Modules 866
Message Board System Modules 830	Trending System Modules 868
Onboarding System Modules 832	Account System Modules 870
Payment System Modules 834	Content Verification System Modules 872
Posting System Modules 836	Index System Modules 874
Publishing System Modules 838	



Core Modules 700

FIGURE 8

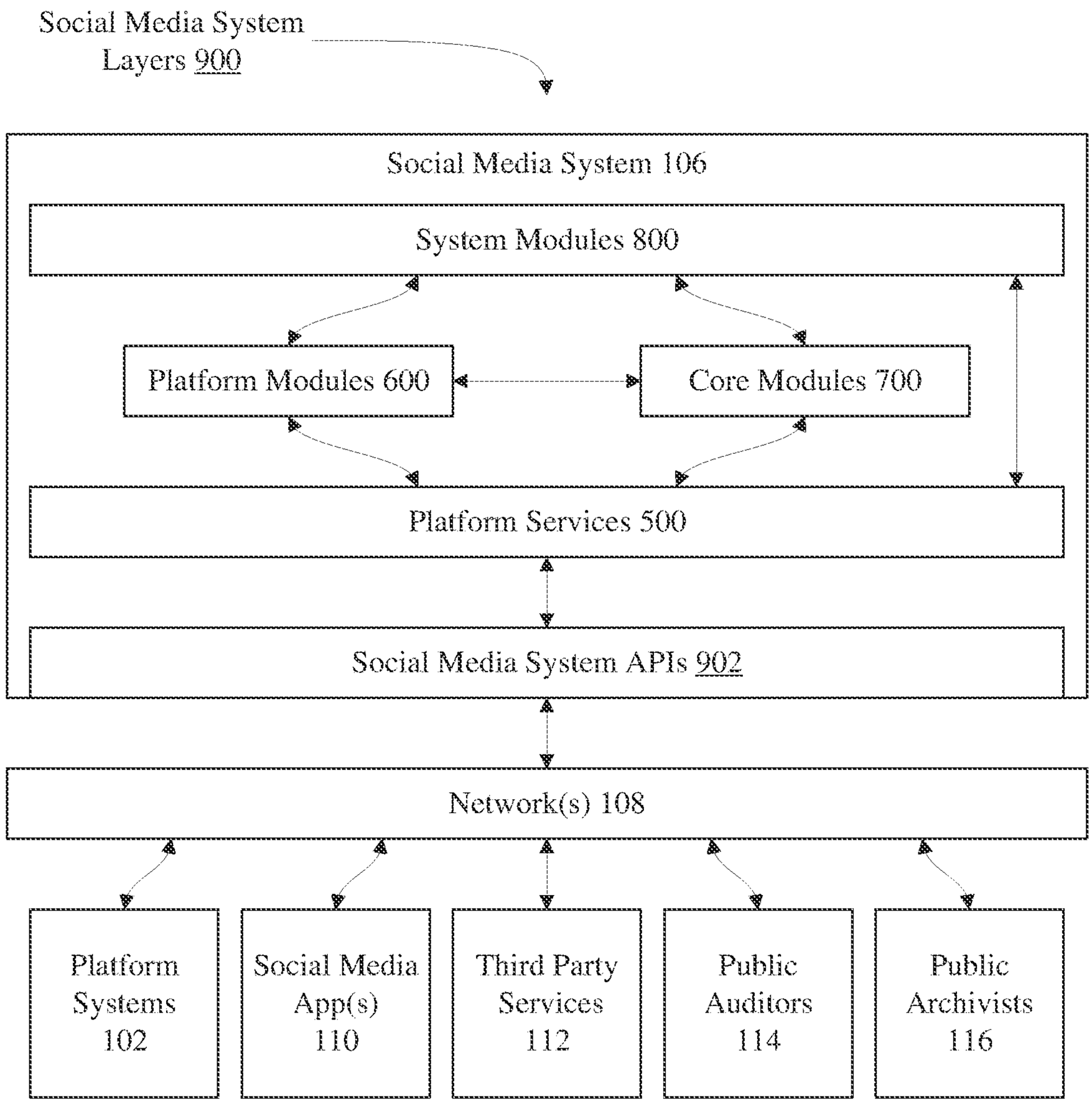

Social Media System Layers 900
Social Media System 106
System Modules 800
Platform Modules 600
Core Modules 700
Platform Services 500
Social Media System APIs 902
Network(s) 108
Platform Systems 102
Social Media App(s) 110
Third Party Services 112
Public Auditors 114
Public Archivists 116

FIGURE 9

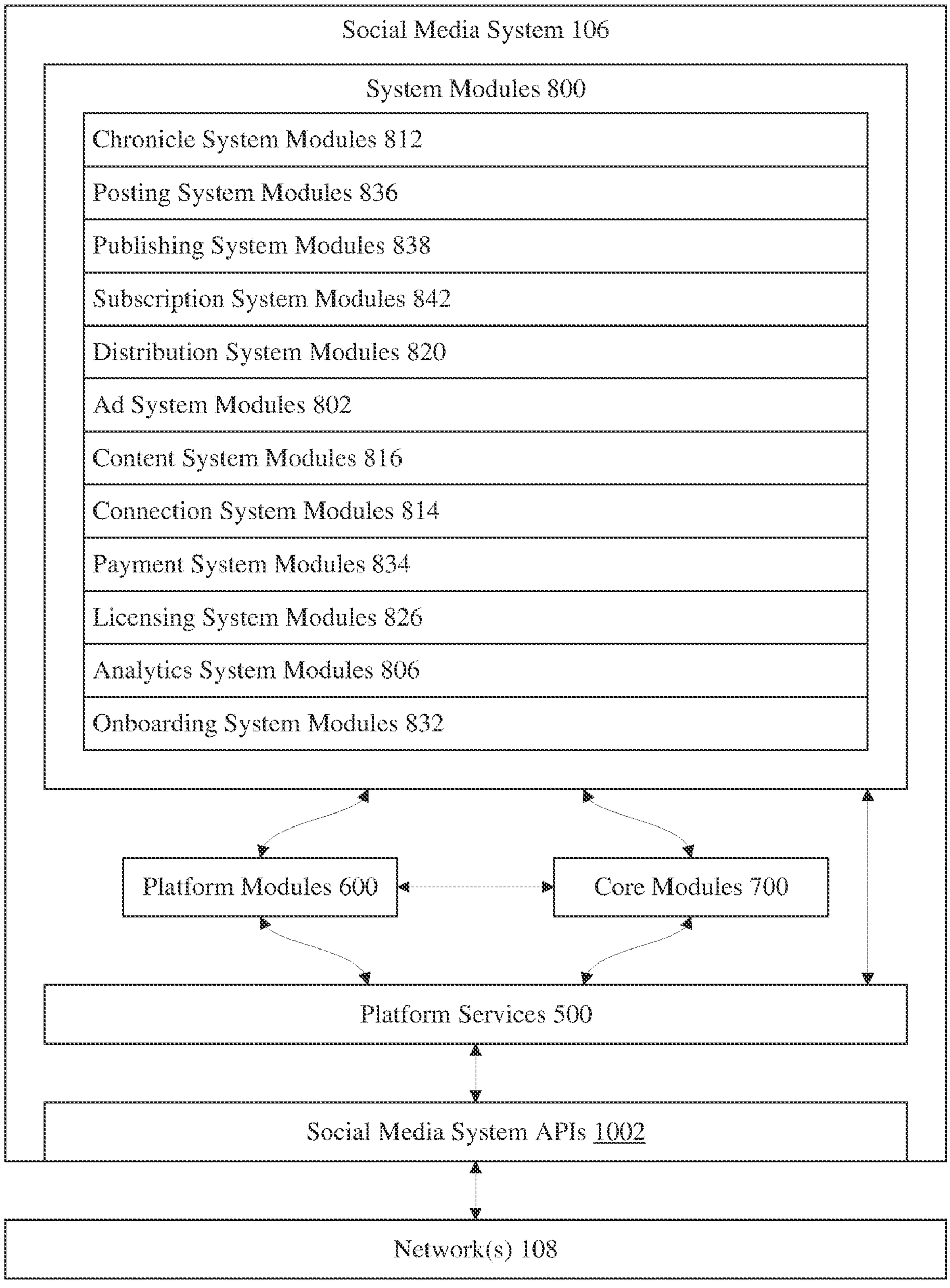

Social Media System 106
System Modules 800
Chronicle System Modules 812
Posting System Modules 836
Publishing System Modules 838
Subscription System Modules 842
Distribution System Modules 820
Ad System Modules 802
Content System Modules 816
Connection System Modules 814
Payment System Modules 834
Licensing System Modules 826
Analytics System Modules 806
Onboarding System Modules 832
Platform Modules 600
Core Modules 700
Platform Services 500
Social Media System APIs 1002
Network(s) 108

FIGURE 10

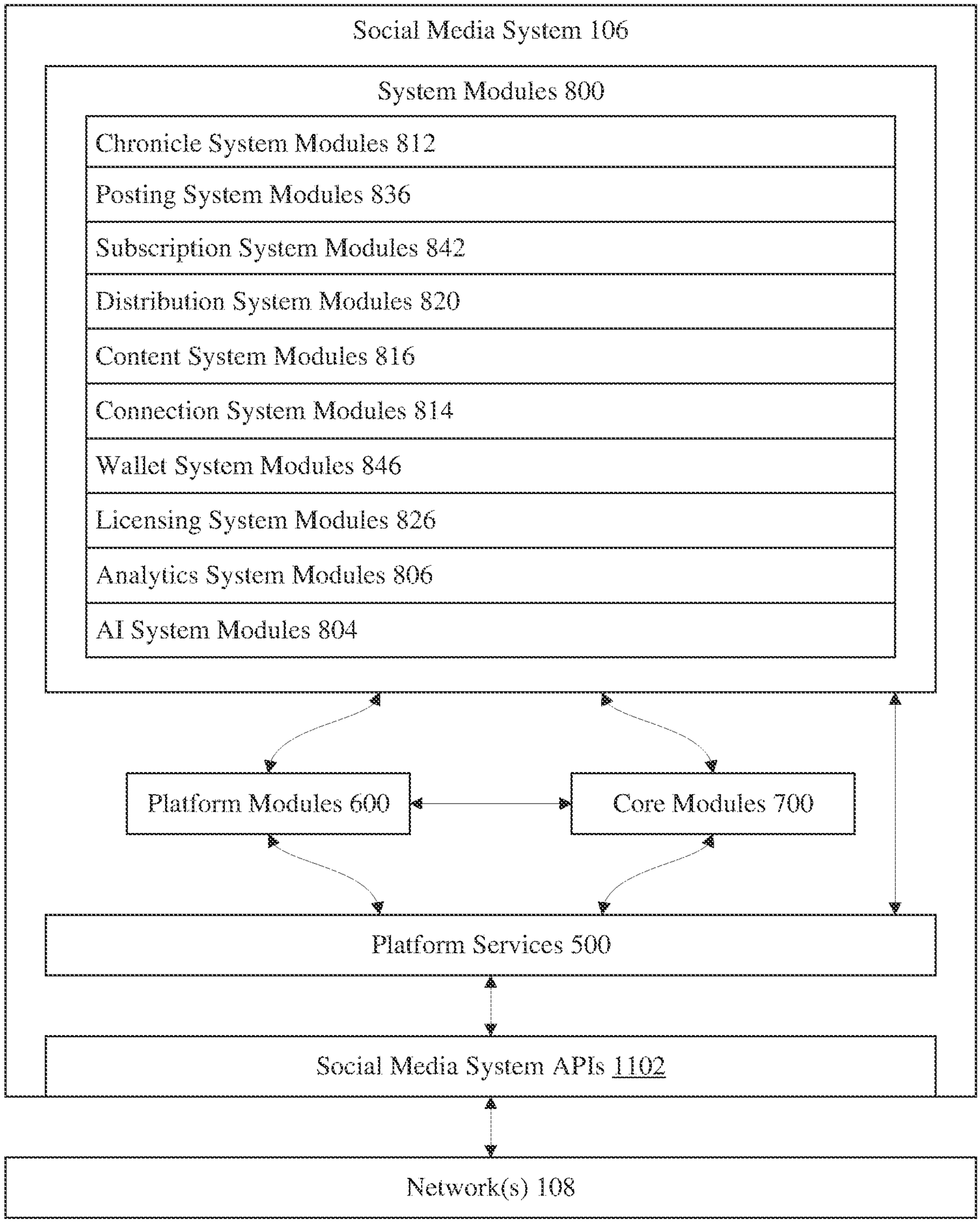

Social Media System 106
System Modules 800
Chronicle System Modules 812
Posting System Modules 836
Subscription System Modules 842
Distribution System Modules 820
Content System Modules 816
Connection System Modules 814
Wallet System Modules 846
Licensing System Modules 826
Analytics System Modules 806
AI System Modules 804
Platform Modules 600
Core Modules 700
Platform Services 500
Social Media System APIs 1102
Network(s) 108

FIGURE 11

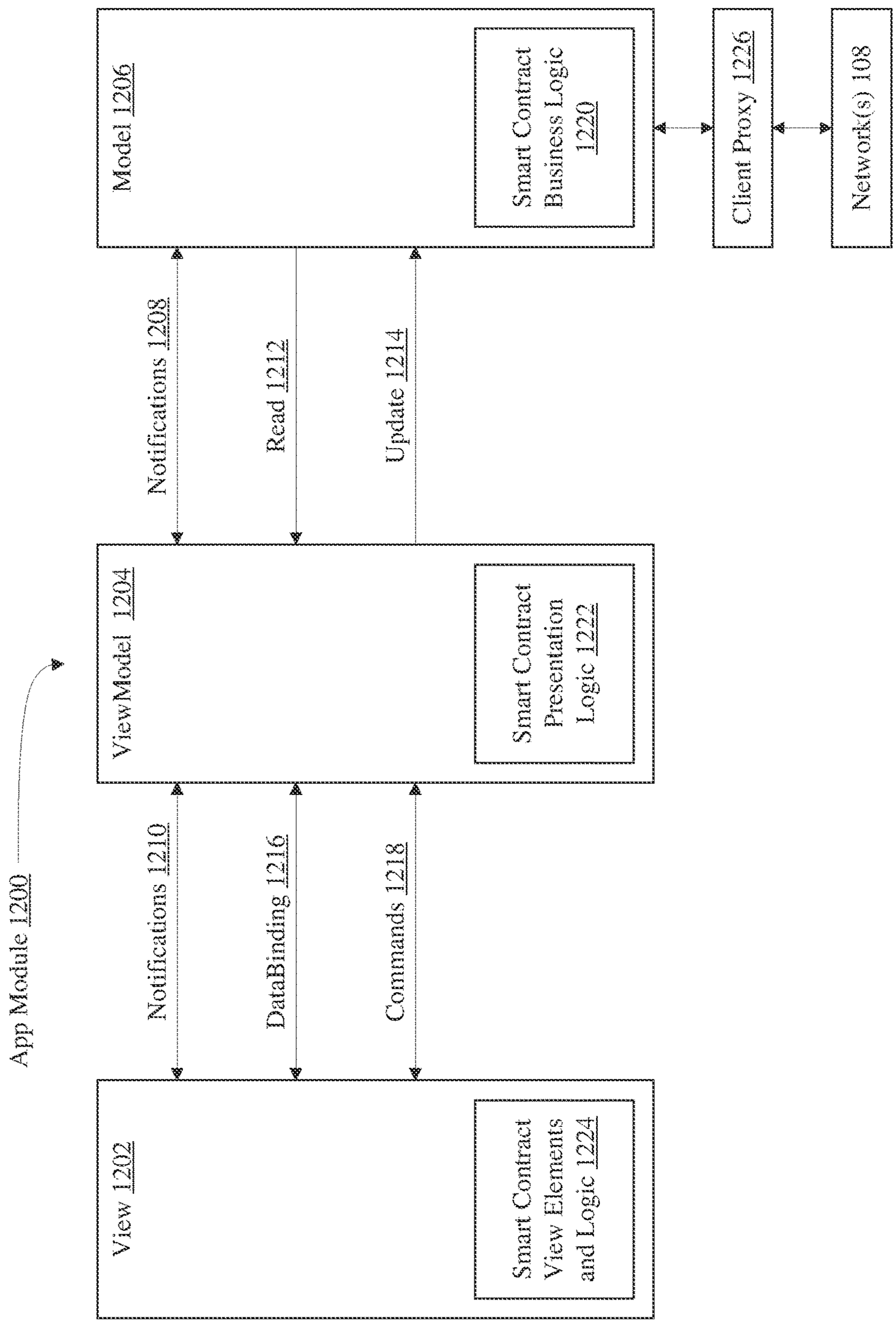

App Module 1200
View 1202
Smart Contract View Elements and Logic 1224
Notifications 1210
DataBinding 1216
Commands 1218
ViewModel 1204
Smart Contract Presentation Logic 1222
Notifications 1208
Read 1212
Update 1214
Model 1206
Smart Contract Business Logic 1220
Client Proxy 1226
Network(s) 108

FIGURE 12

App Modules 1300

Ad App Module 1302	Search App Module 1340
AI App Module 1304	Subscription App Module 1342
Analytics App Module 1306	Third Party App Modules 1344
Archive App Module 1308	Wallet App Module 1346
Audit App Module 1310	Endorsement App Module 1348
Chronicle App Module 1312	Compliance App Module 1350
Connection App Module 1314	Consensus App Module 1352
Content App Module 1316	Notary App Module 1354
Directory App Module 1318	Certified Email App Module 1356
Distribution App Module 1320	Workflow App Module 1358
Identity App Module 1322	SDK App Module 1360
Ledger App Module 1324	Copyright App Module 1362
Licensing App Module 1326	Rhetoric App Module 1364
Machine Learning App Module 1328	User Verification App Module 1366
Message Board App Module 1330	Trending App Module 1368
Onboarding App Module 1332	Account App Module 1370
Payment App Module 1334	Content Verification App Module 1372
Posting App Module 1336	Index App Module 1374
Publishing App Module 1338	

Core Modules 700

FIGURE 13

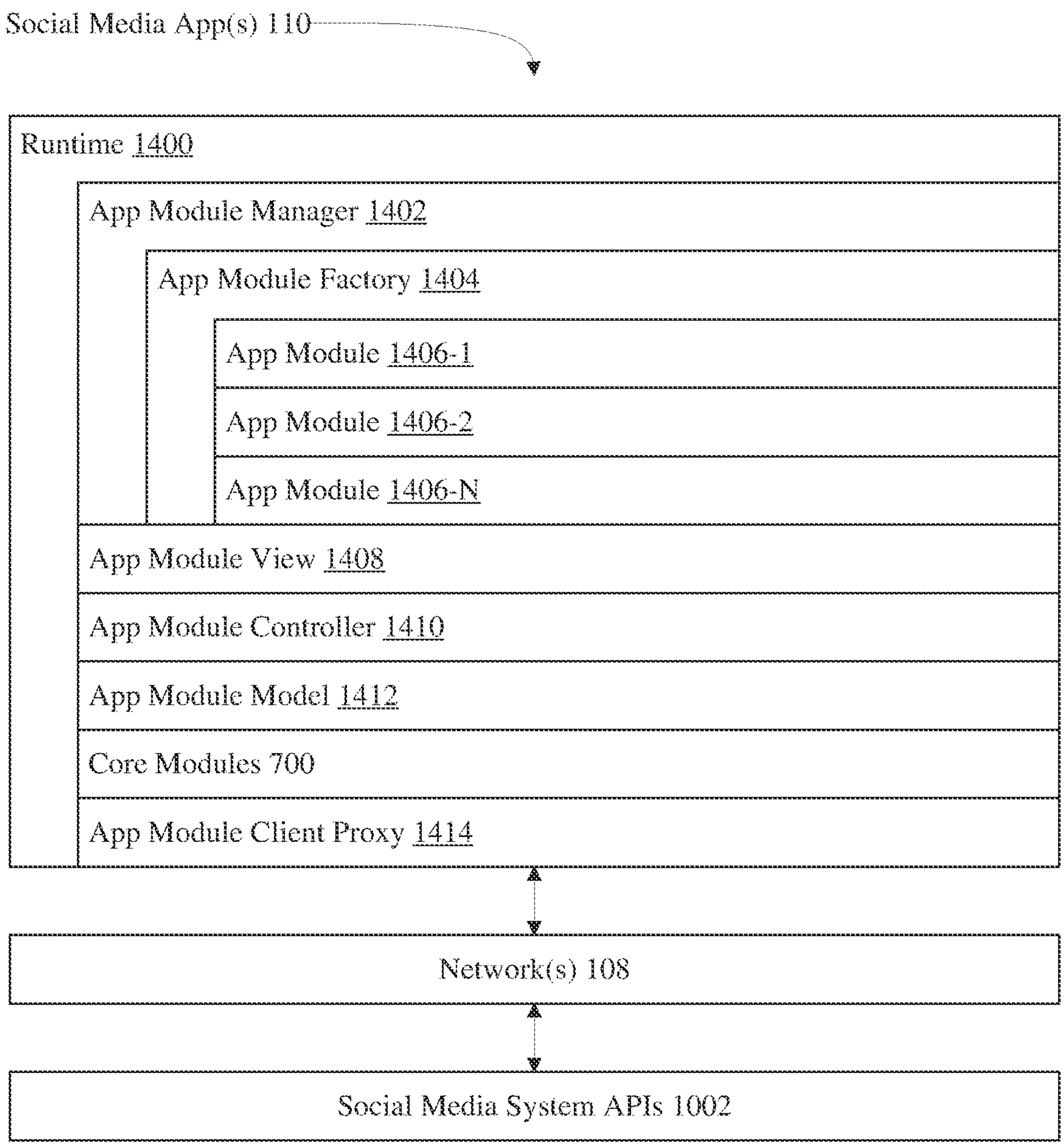

Social Media App(s) 110
Runtime 1400
App Module Manager 1402
App Module Factory 1404
App Module 1406-1
App Module 1406-2
App Module 1406-N
App Module View 1408
App Module Controller 1410
App Module Model 1412
Core Modules 700
App Module Client Proxy 1414
Network(s) 108
Social Media System APIs 1002

FIGURE 14

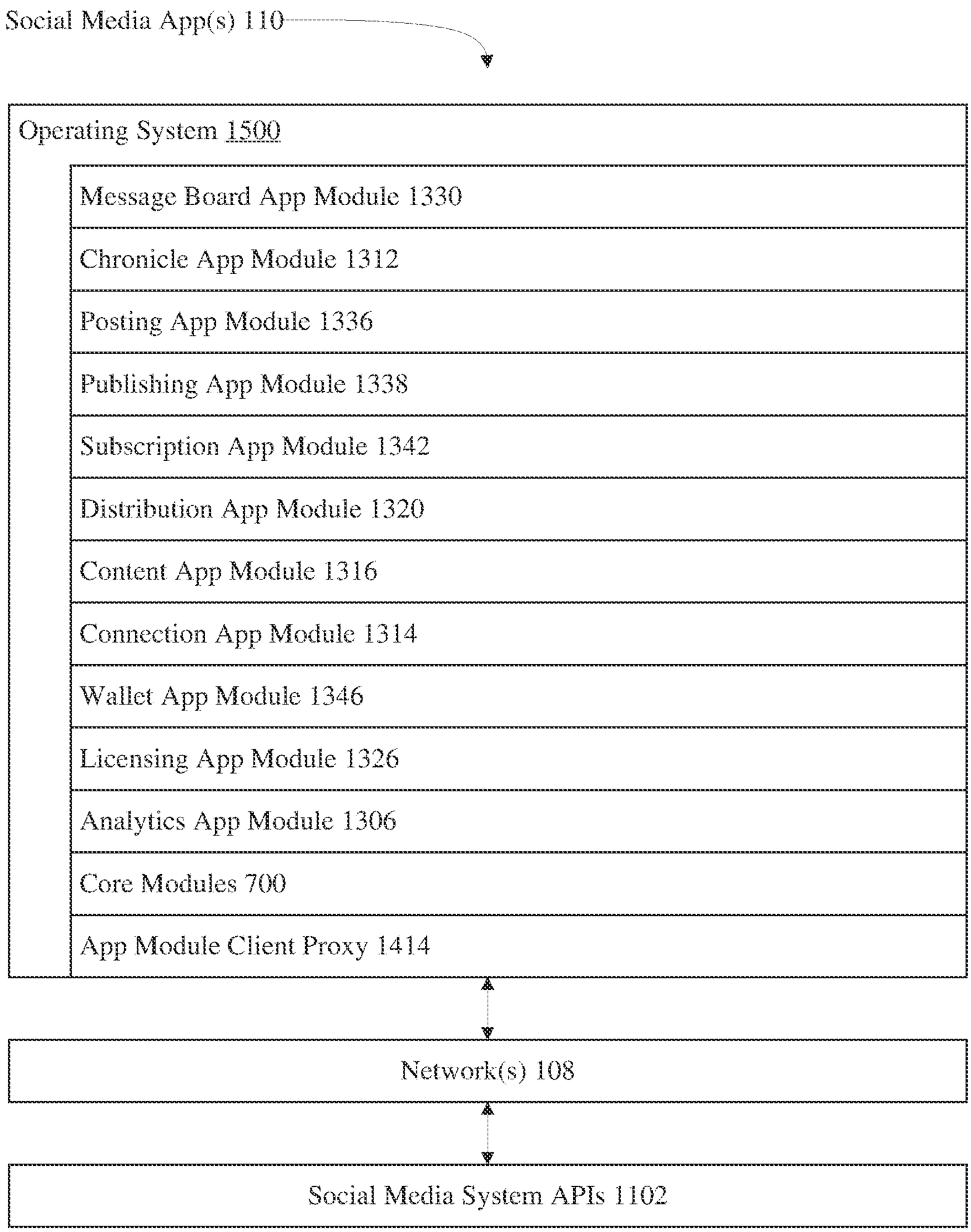

Social Media App(s) 110
Operating System 1500
Message Board App Module 1330
Chronicle App Module 1312
Posting App Module 1336
Publishing App Module 1338
Subscription App Module 1342
Distribution App Module 1320
Content App Module 1316
Connection App Module 1314
Wallet App Module 1346
Licensing App Module 1326
Analytics App Module 1306
Core Modules 700
App Module Client Proxy 1414
Network(s) 108
Social Media System APIs 1102

FIGURE 15

Platform System Modules 1600

API Platform System Modules 1602	User Verification Platform System Modules 1630
Archive Platform System Modules 1604	Connection Platform System Modules 1632
Audit Platform System Modules 1606	Consensus Platform System Modules 1634
Chronicle Platform System Modules 1608	SDK Platform System Modules 1636
Directory Platform System Modules 1610	AI Platform System Modules 1638
Identity Platform System Modules 1612	Analytics Platform System Modules 1640
Ledger Platform System Modules 1614	Machine Learning Platform System Modules 1642
Onboarding Platform System Modules 1616	Trending Platform System Modules 1644
Payment Platform System Modules 1618	Endorsement Platform System Modules 1646
Platform Management System Modules 1620	Ad Platform System Modules 1648
Search Platform System Modules 1622	Content Verification Platform System Modules 1650
Third Party Platform System Modules 1624	Index Platform System Modules 1652
Account Platform System Modules 1626	Content Platform System Modules 1654
Telemetry Platform System Modules 1628	

Core Modules 700

FIGURE 16

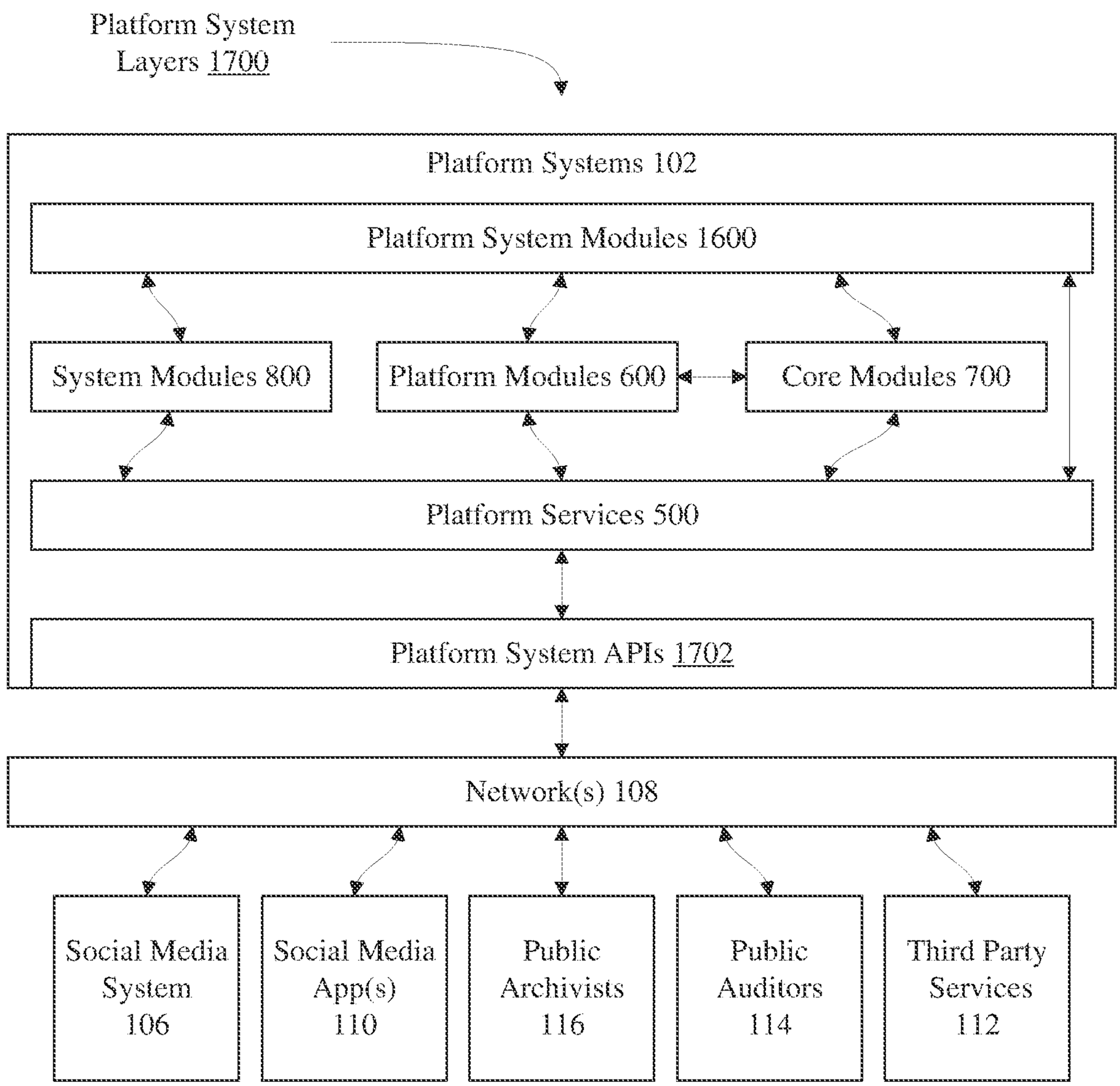

Platform System Layers 1700
Platform Systems 102
Platform System Modules 1600
System Modules 800
Platform Modules 600
Core Modules 700
Platform Services 500
Platform System APIs 1702
Network(s) 108
Social Media System 106
Social Media App(s) 110
Public Archivists 116
Public Auditors 114
Third Party Services 112

FIGURE 17

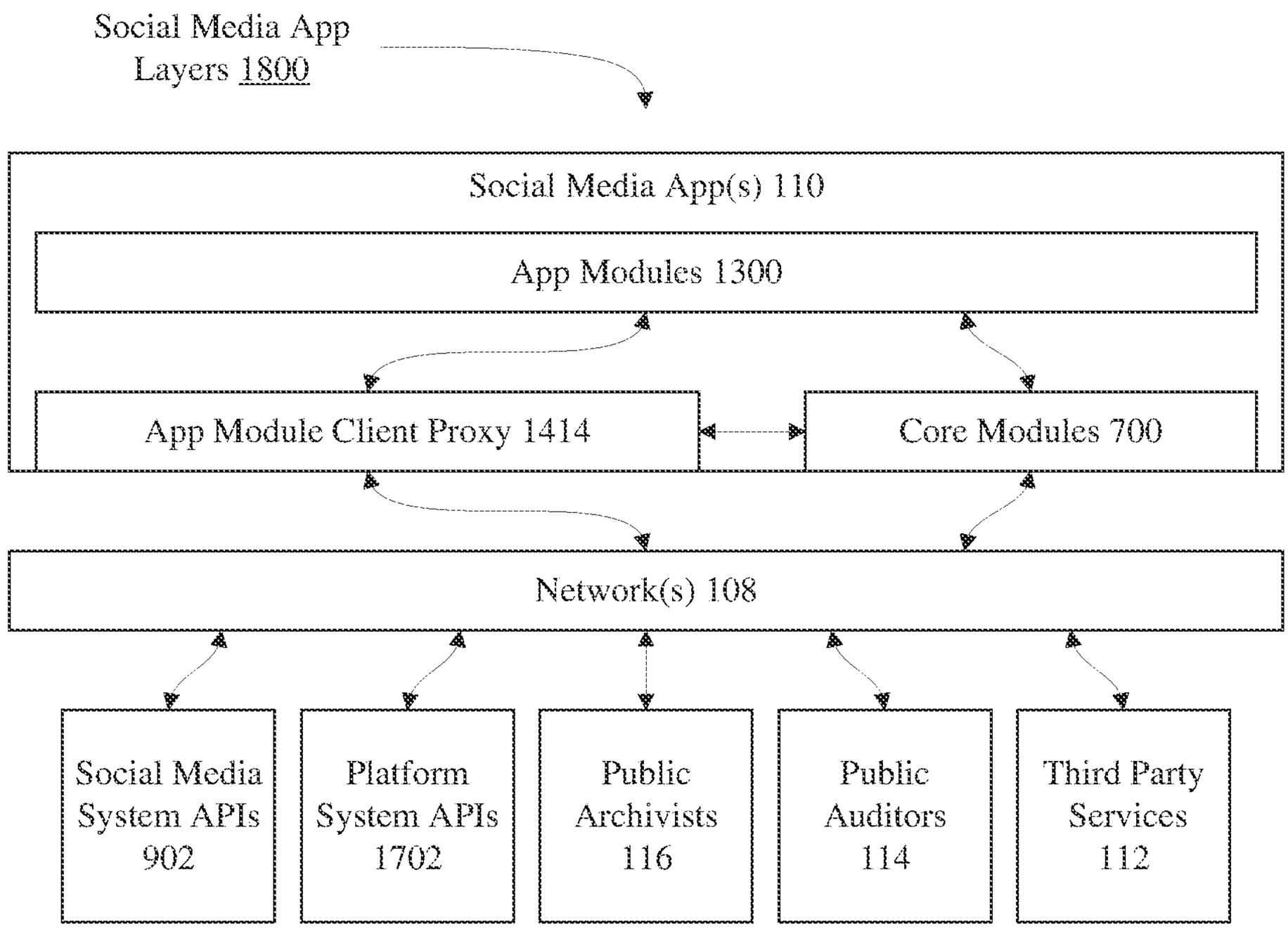

Social Media App Layers 1800
Social Media App(s) 110
App Modules 1300
App Module Client Proxy 1414
Core Modules 700
Network(s) 108
Social Media System APIs 902
Platform System APIs 1702
Public Archivists 116
Public Auditors 114
Third Party Services 112

FIGURE 18

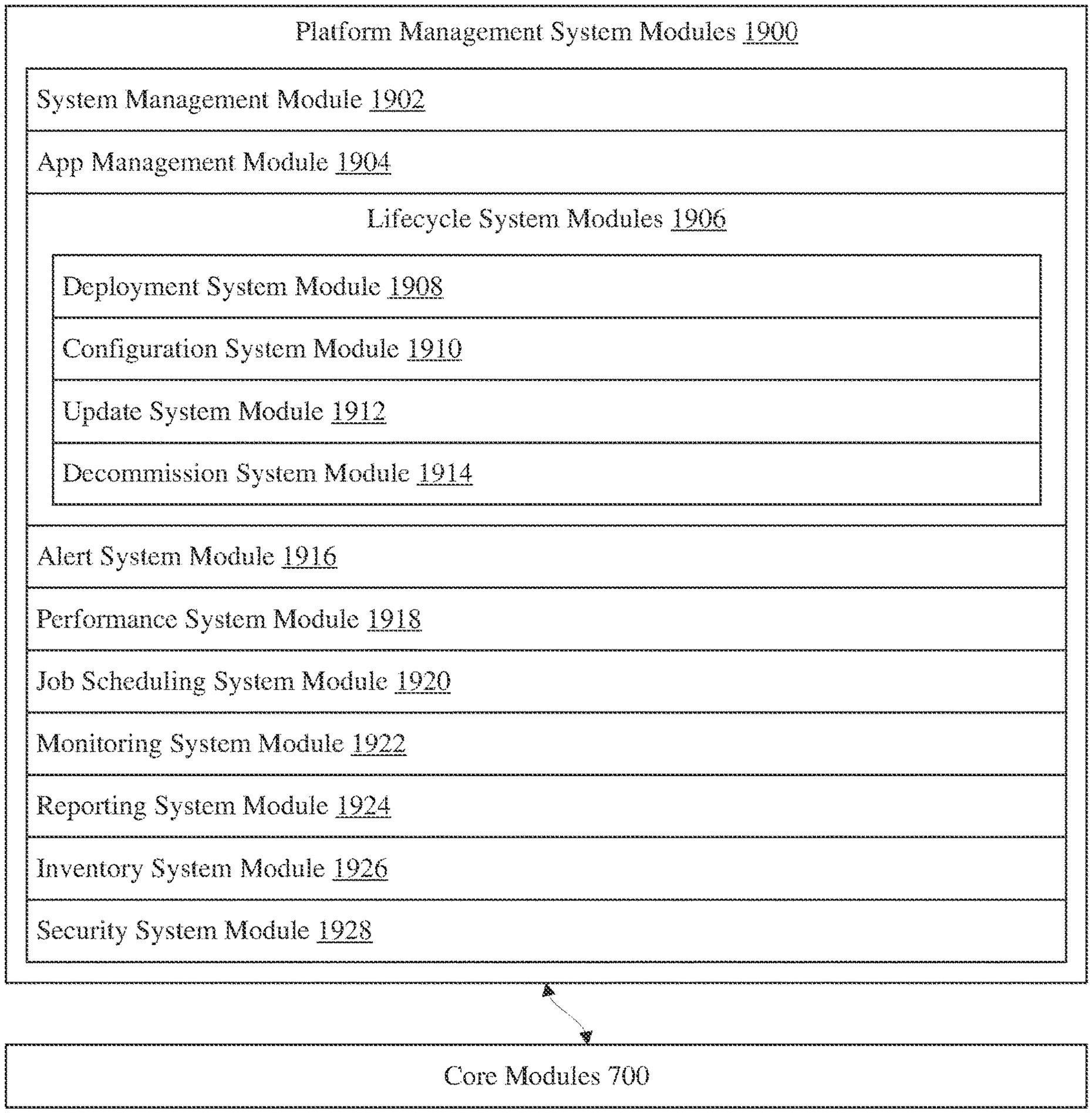

Platform Management System Modules 1900
System Management Module 1902
App Management Module 1904
Lifecycle System Modules 1906
Deployment System Module 1908
Configuration System Module 1910
Update System Module 1912
Decommission System Module 1914
Alert System Module 1916
Performance System Module 1918
Job Scheduling System Module 1920
Monitoring System Module 1922
Reporting System Module 1924
Inventory System Module 1926
Security System Module 1928
Core Modules 700

FIGURE 19

Chronicle Record 2000

Record Header 2002

Id 2004	Version 2006
Timestamp 2008	Previous Record Hash 2010
Record Nonce 2012	Record Hash 2014
Record Header Graph 2016	Record Signature 2018

Source Graph 2020	Contracts Graph 2022
Content Graph 2024	Workflow Graph 2026
Index Graph 2028	State Graph 2030
Audit Graph 2032	Directory Graph 2034
Conference Graph 2036	Other Graph 2038

Base Graph 2050

Base Graph Schema 2052	Base Graph Schema Version 2054
Base Graph Hash 2056	Base Graph Signature 2058
Base Graph Estimated Work 2060	Base Graph Actual Work 2062

Graph Collection 2070

Node(s) 2072	Edge(s) 2074

Hash Algorithms 2080

Merkle Tree 2082	Object Graph Hash Algorithm 2084
Graph Schema Hash Algorithm 2086	

FIGURE 20

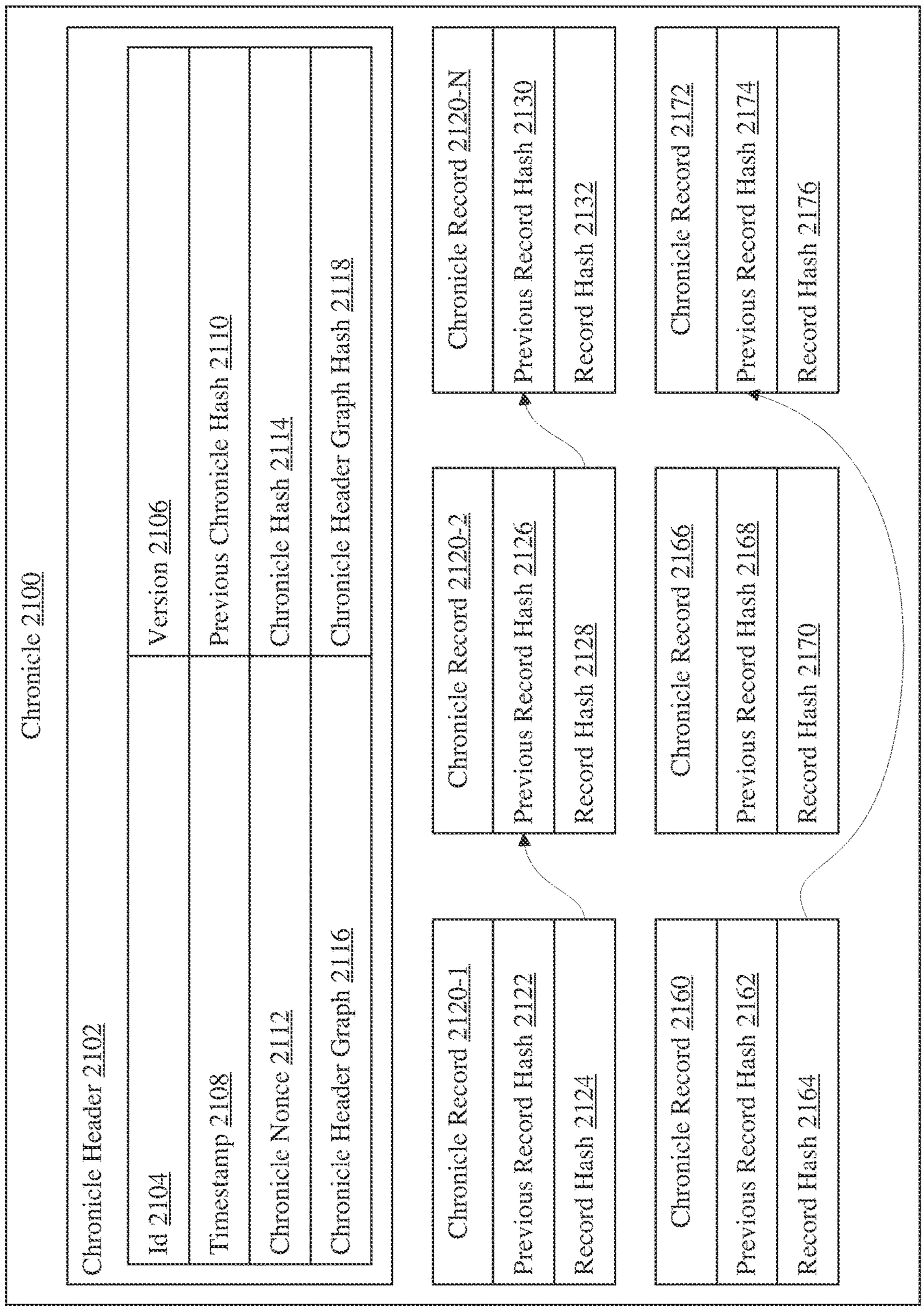

Chronicle 2100
Chronicle Header 2102
Id 2104
Version 2106
Timestamp 2108
Previous Chronicle Hash 2110
Chronicle Nonce 2112
Chronicle Hash 2114
Chronicle Header Graph 2116
Chronicle Header Graph Hash 2118
Chronicle Record 2120-1
Previous Record Hash 2122
Record Hash 2124
Chronicle Record 2120-2
Previous Record Hash 2126
Record Hash 2128
Chronicle Record 2120-N
Previous Record Hash 2130
Record Hash 2132
Chronicle Record 2160
Previous Record Hash 2162
Record Hash 2164
Chronicle Record 2166
Previous Record Hash 2168
Record Hash 2170
Chronicle Record 2172
Previous Record Hash 2174
Record Hash 2176

FIGURE 21

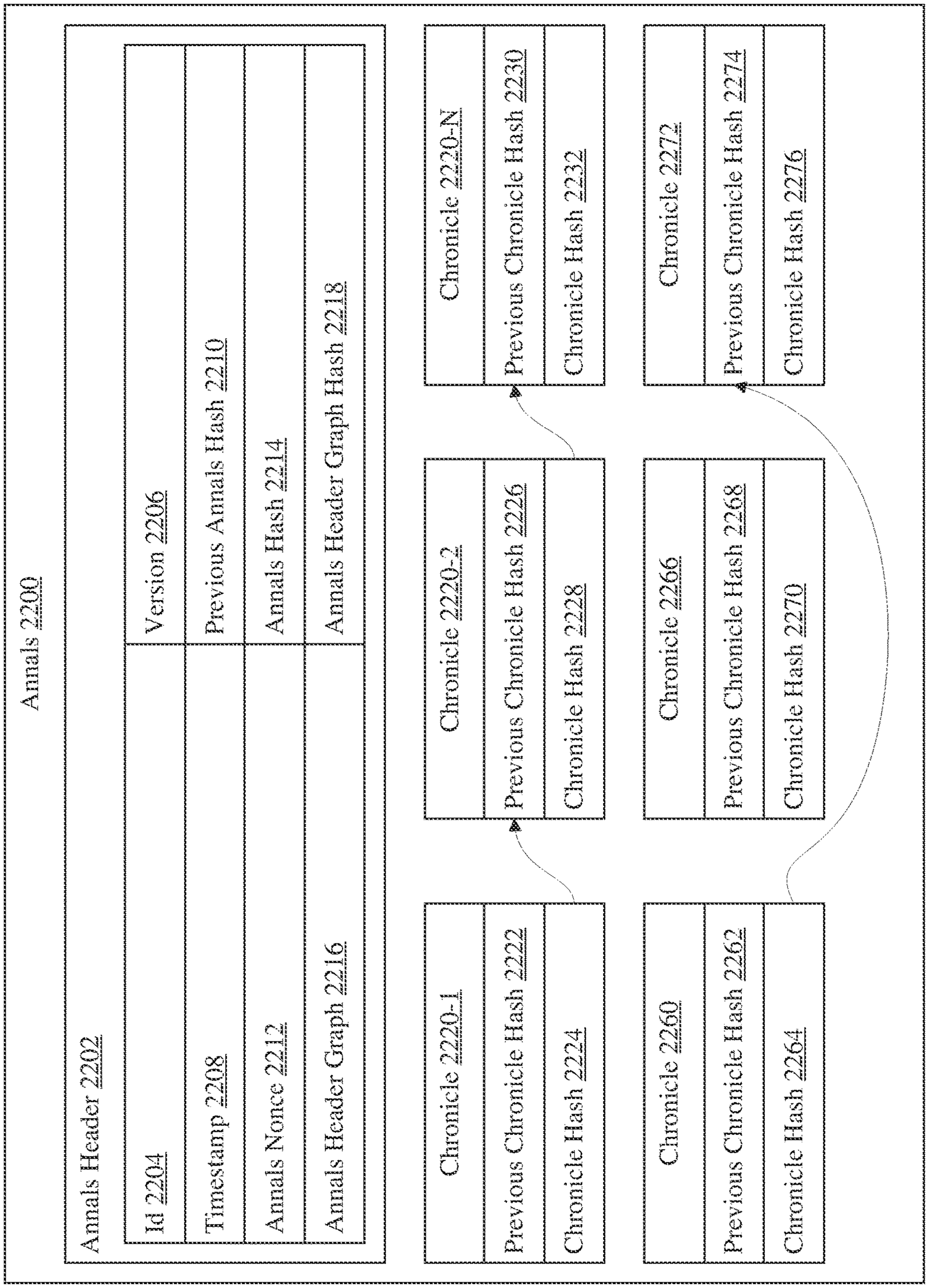

Annals 2200
Annals Header 2202
Id 2204
Version 2206
Timestamp 2208
Previous Annals Hash 2210
Annals Nonce 2212
Annals Hash 2214
Annals Header Graph 2216
Annals Header Graph Hash 2218
Chronicle 2220-1
Previous Chronicle Hash 2222
Chronicle Hash 2224
Chronicle 2220-2
Previous Chronicle Hash 2226
Chronicle Hash 2228
Chronicle 2220-N
Previous Chronicle Hash 2230
Chronicle Hash 2232
Chronicle 2260
Previous Chronicle Hash 2262
Chronicle Hash 2264
Chronicle 2266
Previous Chronicle Hash 2268
Chronicle Hash 2270
Chronicle 2272
Previous Chronicle Hash 2274
Chronicle Hash 2276

FIGURE 22

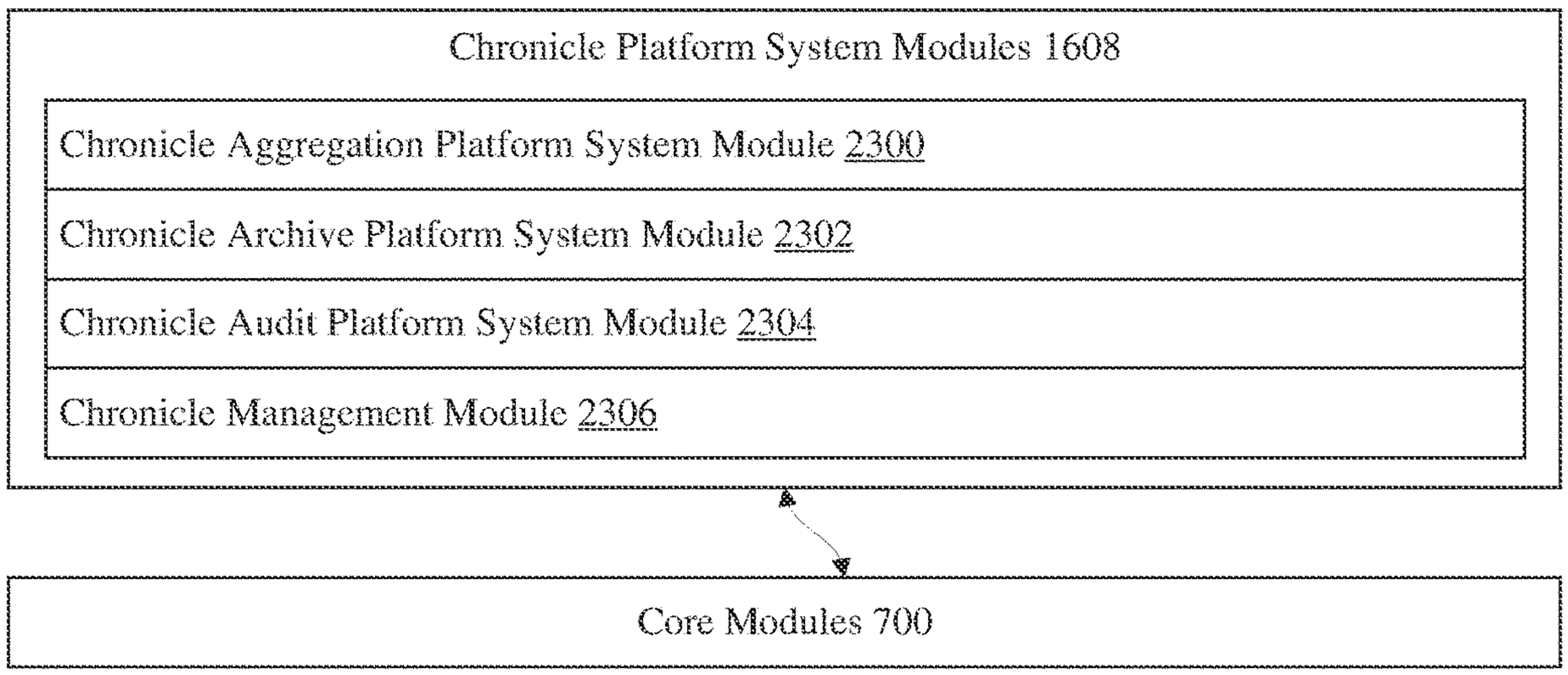

Chronicle Platform System Modules 1608
Chronicle Aggregation Platform System Module 2300
Chronicle Archive Platform System Module 2302
Chronicle Audit Platform System Module 2304
Chronicle Management Module 2306
Core Modules 700

FIGURE 23

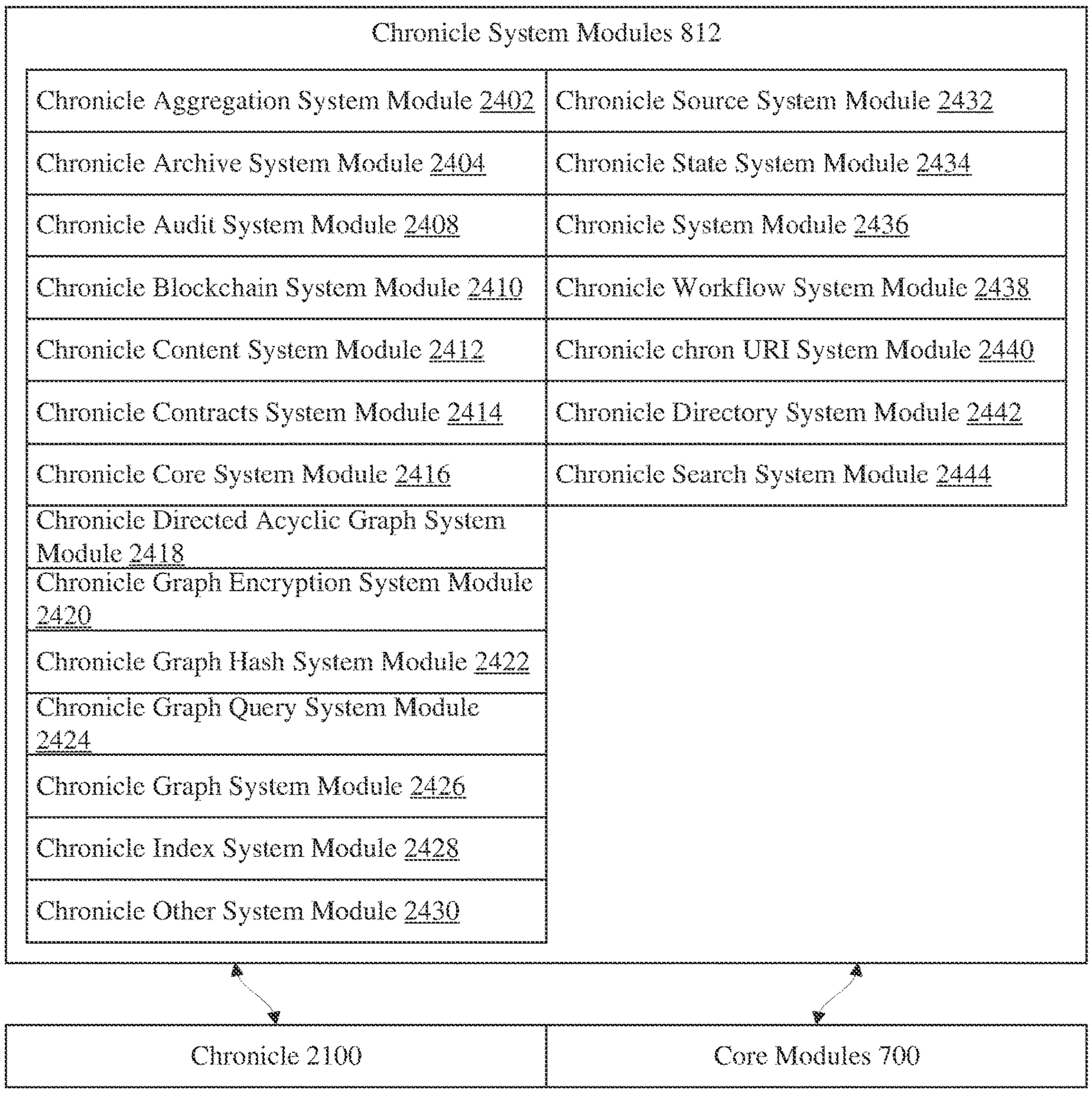
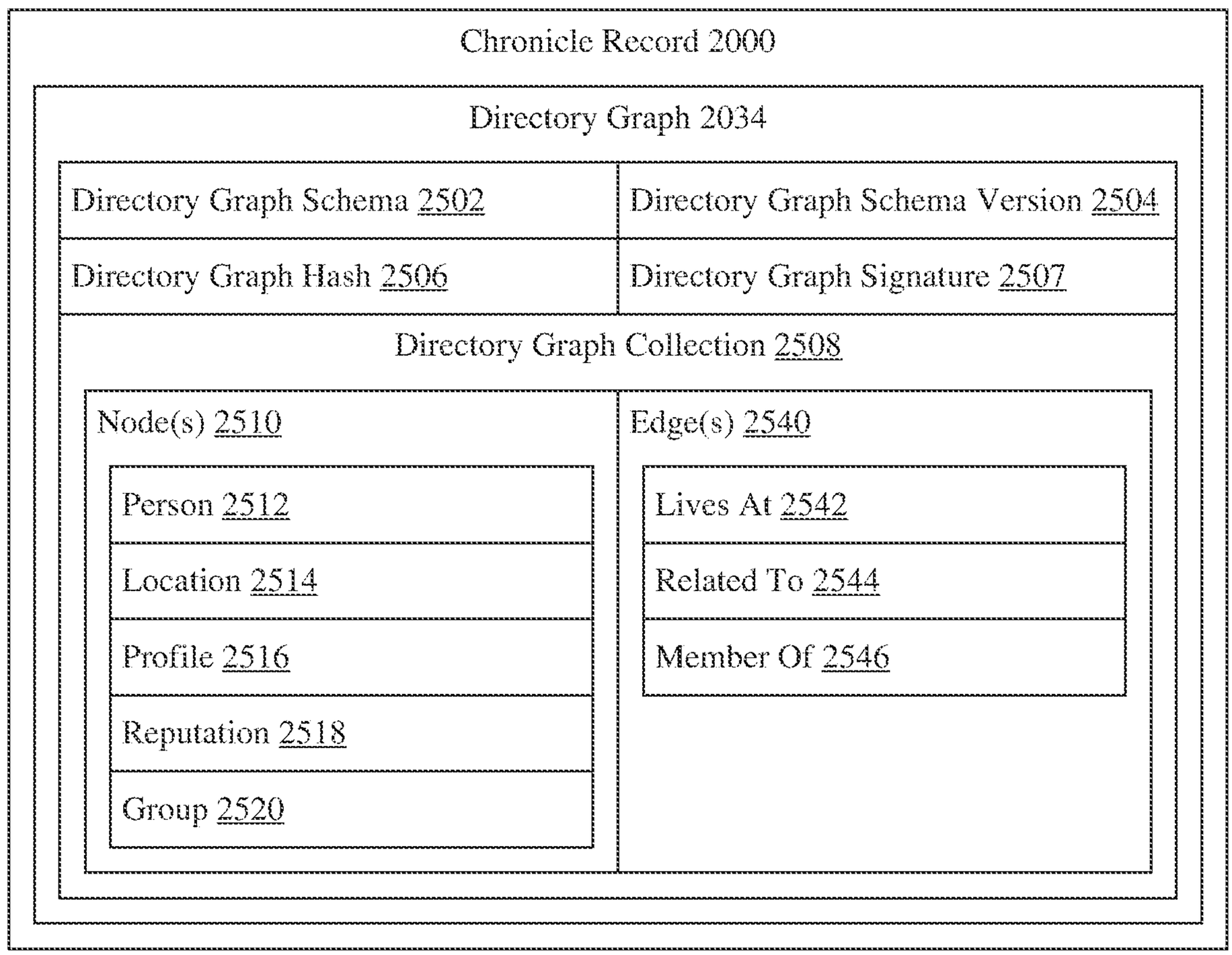

Chronicle System Modules 812
Chronicle Aggregation System Module 2402
Chronicle Archive System Module 2404
Chronicle Audit System Module 2408
Chronicle Blockchain System Module 2410
Chronicle Content System Module 2412
Chronicle Contracts System Module 2414
Chronicle Core System Module 2416
Chronicle Directed Acyclic Graph System Module 2418
Chronicle Graph Encryption System Module 2420
Chronicle Graph Hash System Module 2422
Chronicle Graph Query System Module 2424
Chronicle Graph System Module 2426
Chronicle Index System Module 2428
Chronicle Other System Module 2430
Chronicle Source System Module 2432
Chronicle State System Module 2434
Chronicle System Module 2436
Chronicle Workflow System Module 2438
Chronicle chron URI System Module 2440
Chronicle Directory System Module 2442
Chronicle Search System Module 2444
Chronicle 2100
Core Modules 700

FIGURE 24


Chronicle Record 2000
Directory Graph 2034
Directory Graph Schema 2502
Directory Graph Schema Version 2504
Directory Graph Hash 2506
Directory Graph Signature 2507
Directory Graph Collection 2508
Node(s) 2510
Person 2512
Location 2514
Profile 2516
Reputation 2518
Group 2520
Edge(s) 2540
Lives At 2542
Related To 2544
Member Of 2546

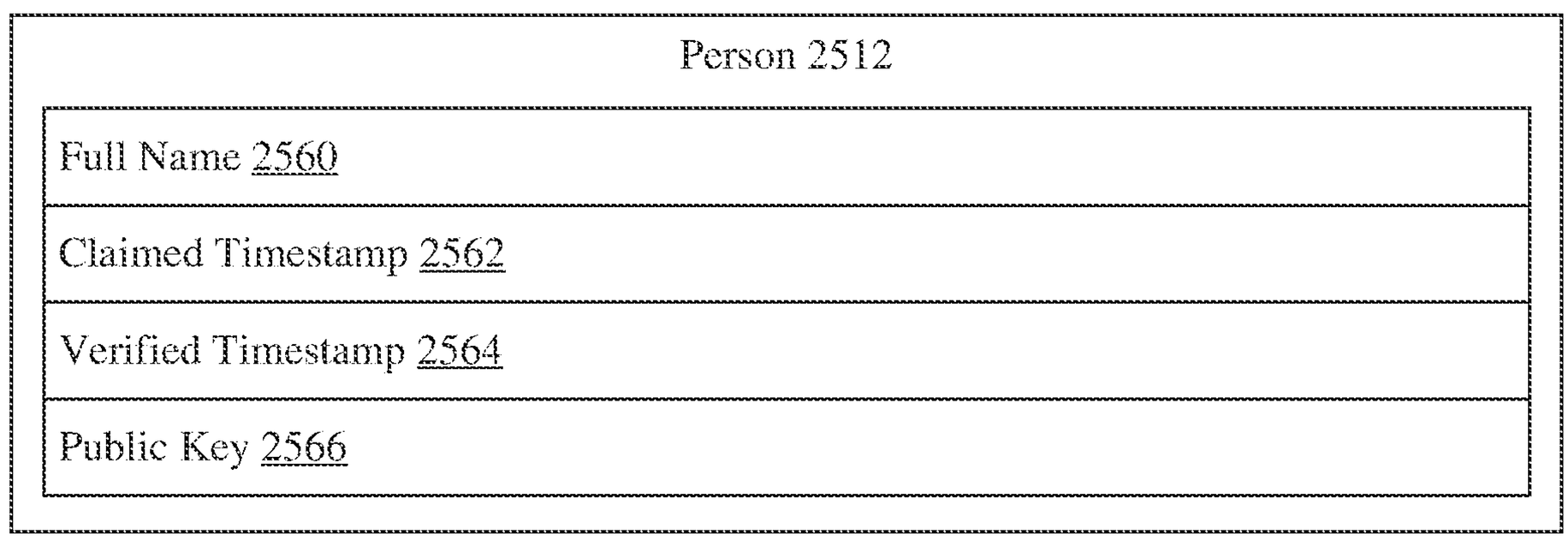
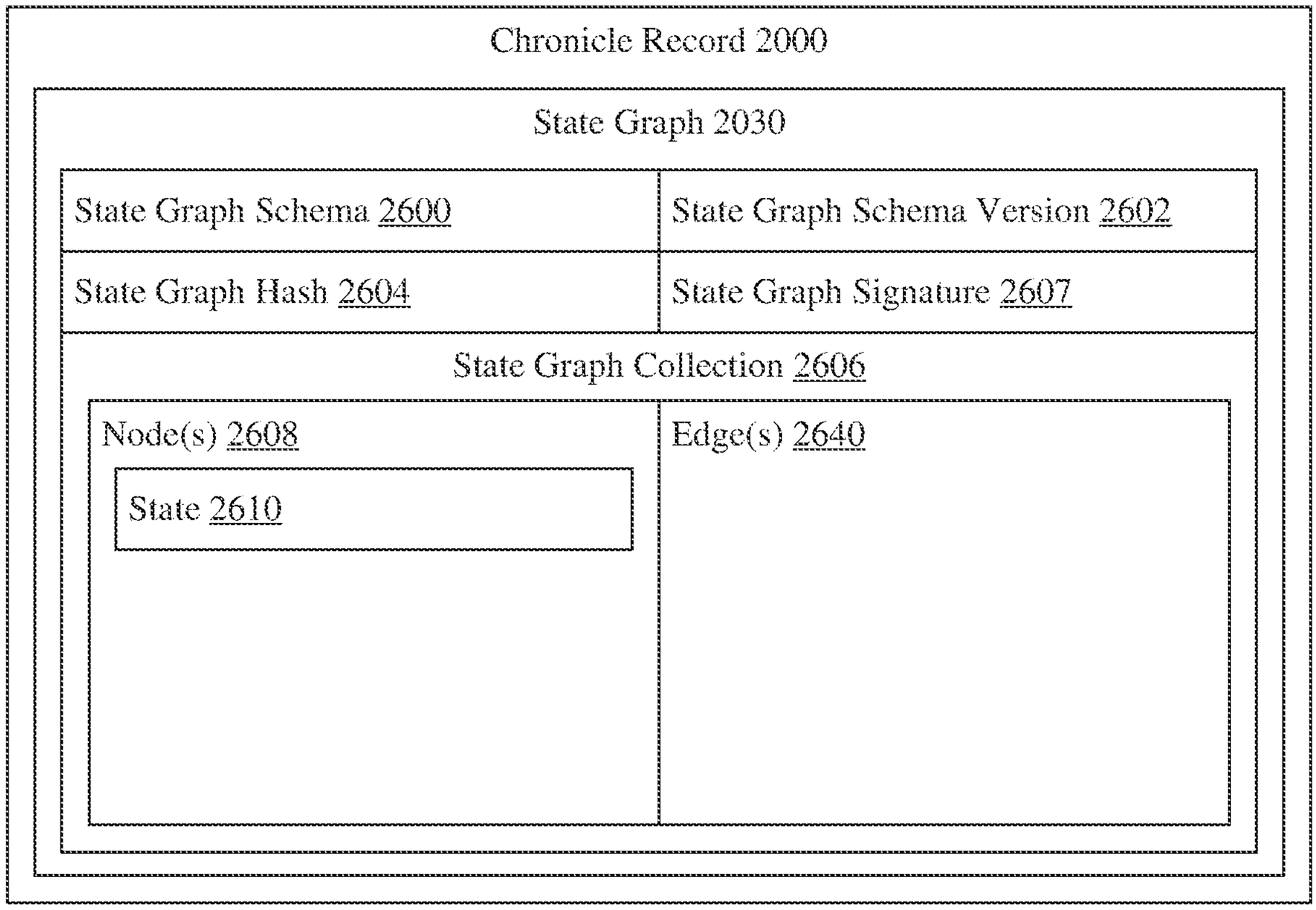
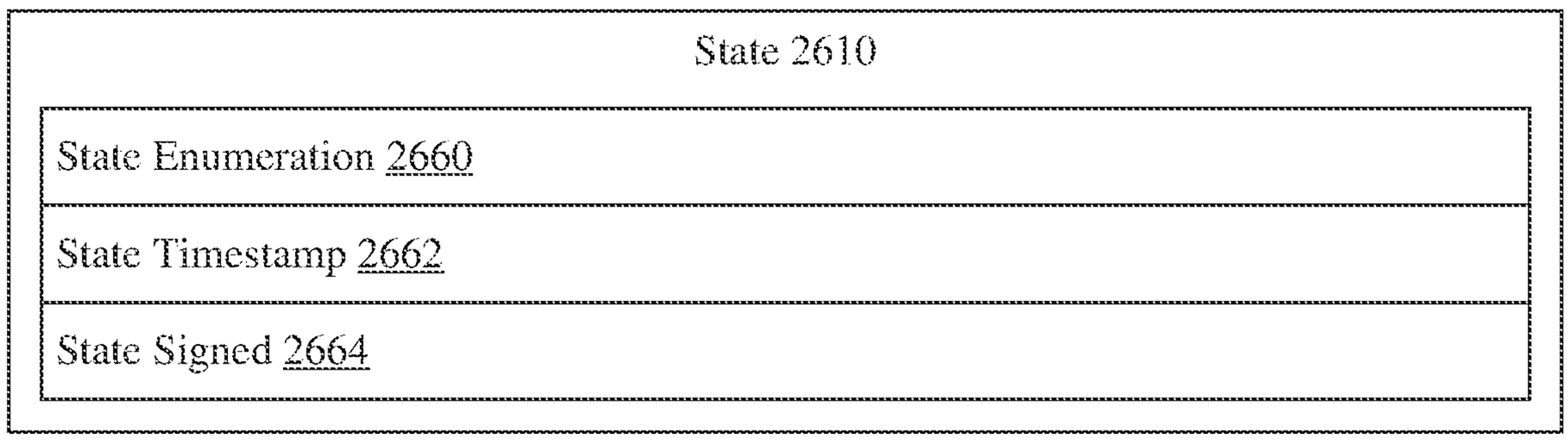

Person 2512
Full Name 2560
Claimed Timestamp 2562
Verified Timestamp 2564
Public Key 2566

FIGURE 25


Chronicle Record 2000
State Graph 2030
State Graph Schema 2600
State Graph Schema Version 2602
State Graph Hash 2604
State Graph Signature 2607
State Graph Collection 2606
Node(s) 2608
State 2610
Edge(s) 2640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State Enumeration 2660
State Timestamp 2662
State Signed 2664

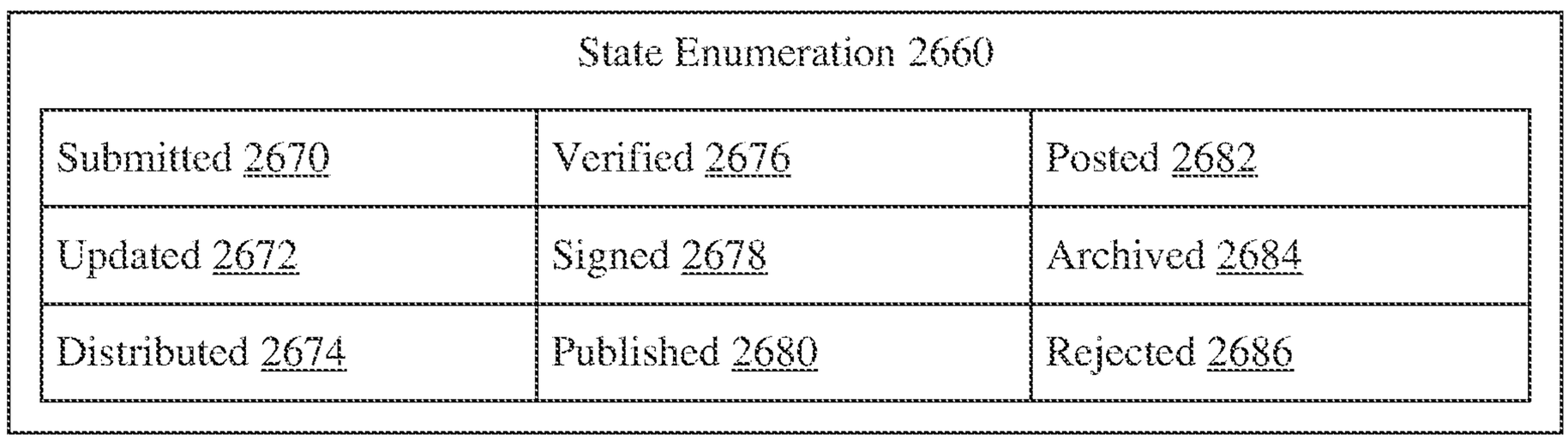

State Enumeration 2660
Submitted 2670
Verified 2676
Posted 2682
Updated 2672
Signed 2678
Archived 2684
Distributed 2674
Published 2680
Rejected 2686

FIGURE 26

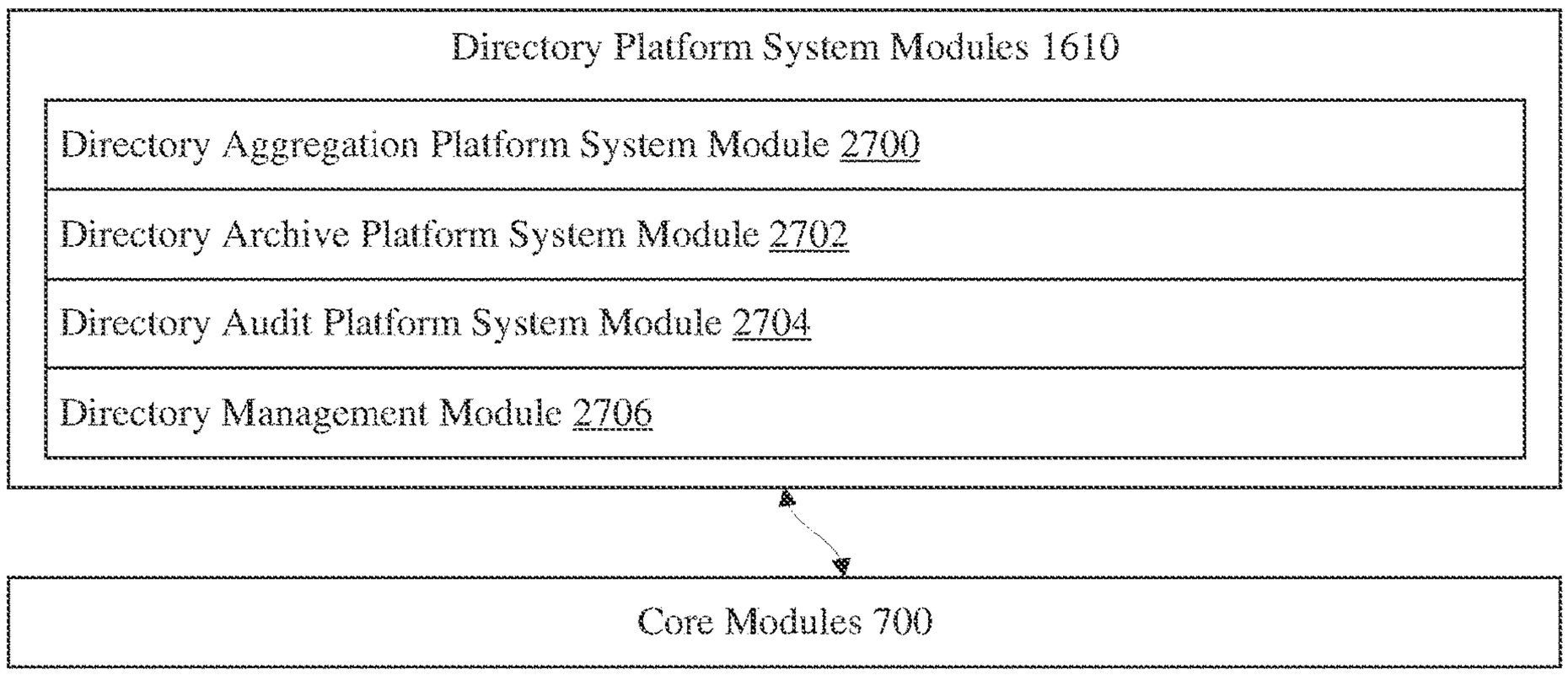

Directory Platform System Modules 1610
Directory Aggregation Platform System Module 2700
Directory Archive Platform System Module 2702
Directory Audit Platform System Module 2704
Directory Management Module 2706
Core Modules 700

FIGURE 27

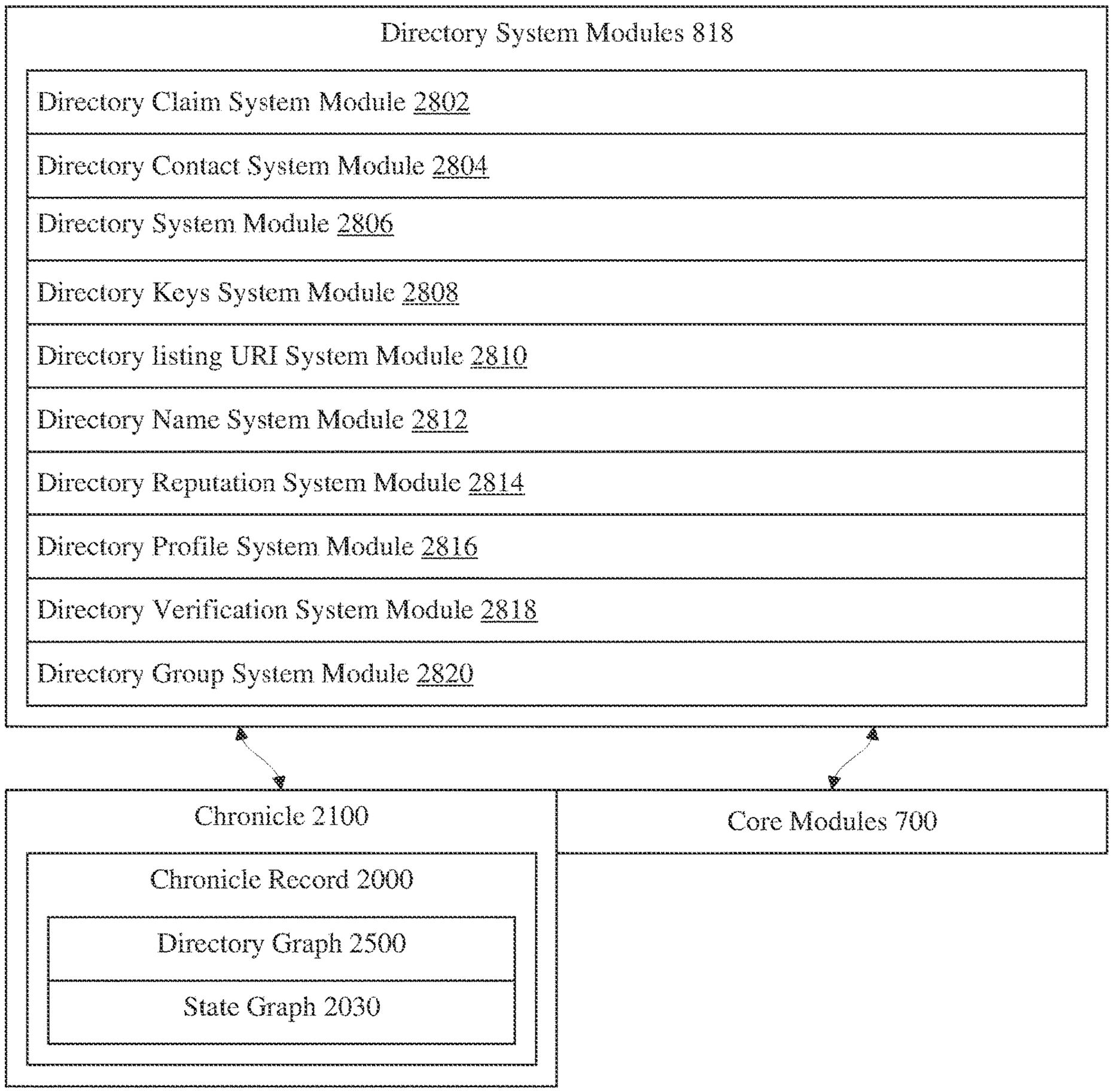

Directory System Modules 818
Directory Claim System Module 2802
Directory Contact System Module 2804
Directory System Module 2806
Directory Keys System Module 2808
Directory listing URI System Module 2810
Directory Name System Module 2812
Directory Reputation System Module 2814
Directory Profile System Module 2816
Directory Verification System Module 2818
Directory Group System Module 2820
Chronicle 2100
Core Modules 700
Chronicle Record 2000
Directory Graph 2500
State Graph 2030

FIGURE 28

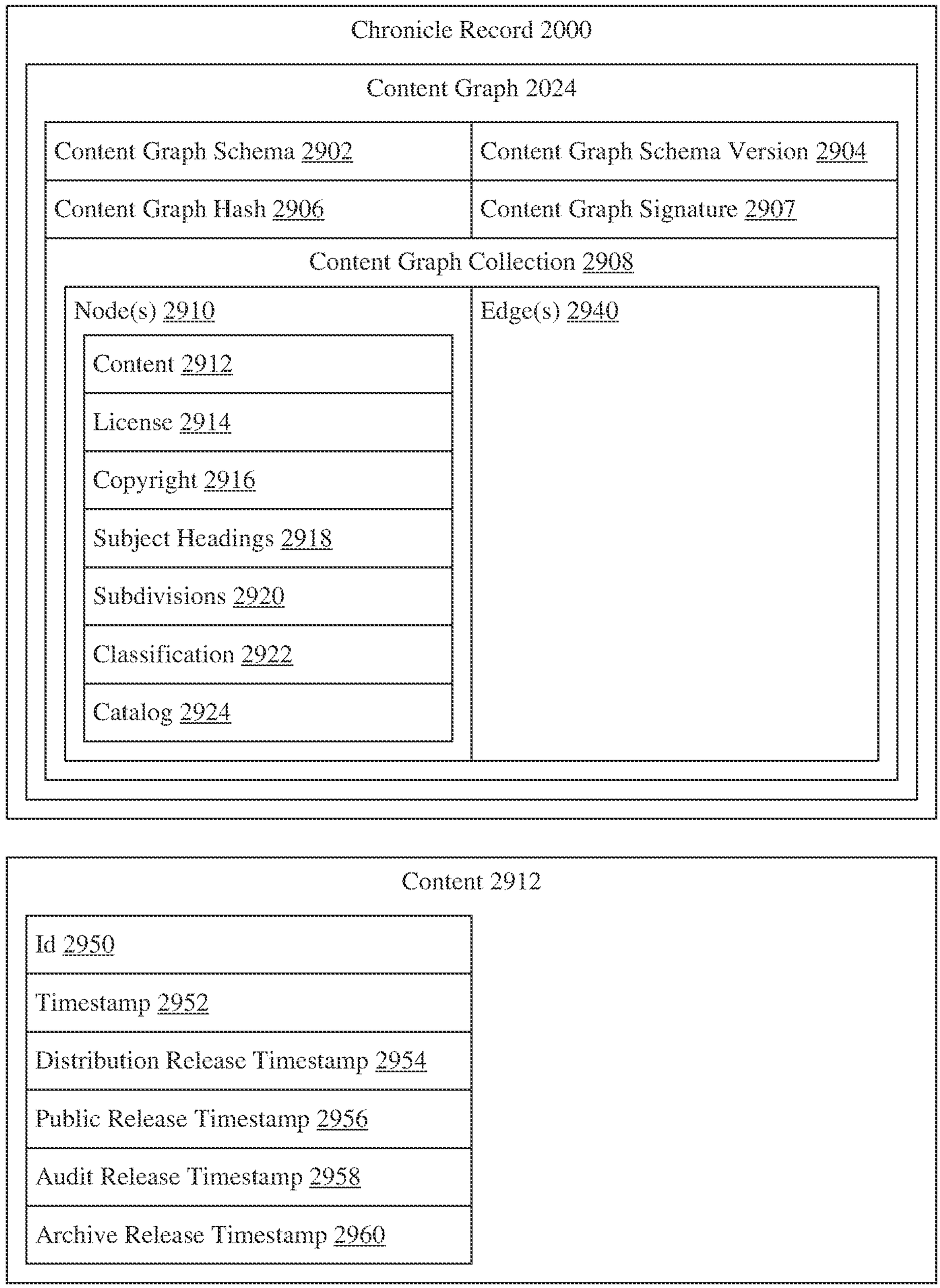

Chronicle Record 2000
Content Graph 2024
Content Graph Schema 2902
Content Graph Schema Version 2904
Content Graph Hash 2906
Content Graph Signature 2907
Content Graph Collection 2908
Node(s) 2910
Edge(s) 2940
Content 2912
License 2914
Copyright 2916
Subject Headings 2918
Subdivisions 2920
Classification 2922
Catalog 2924
Content 2912
Id 2950
Timestamp 2952
Distribution Release Timestamp 2954
Public Release Timestamp 2956
Audit Release Timestamp 2958
Archive Release Timestamp 2960

FIGURE 29

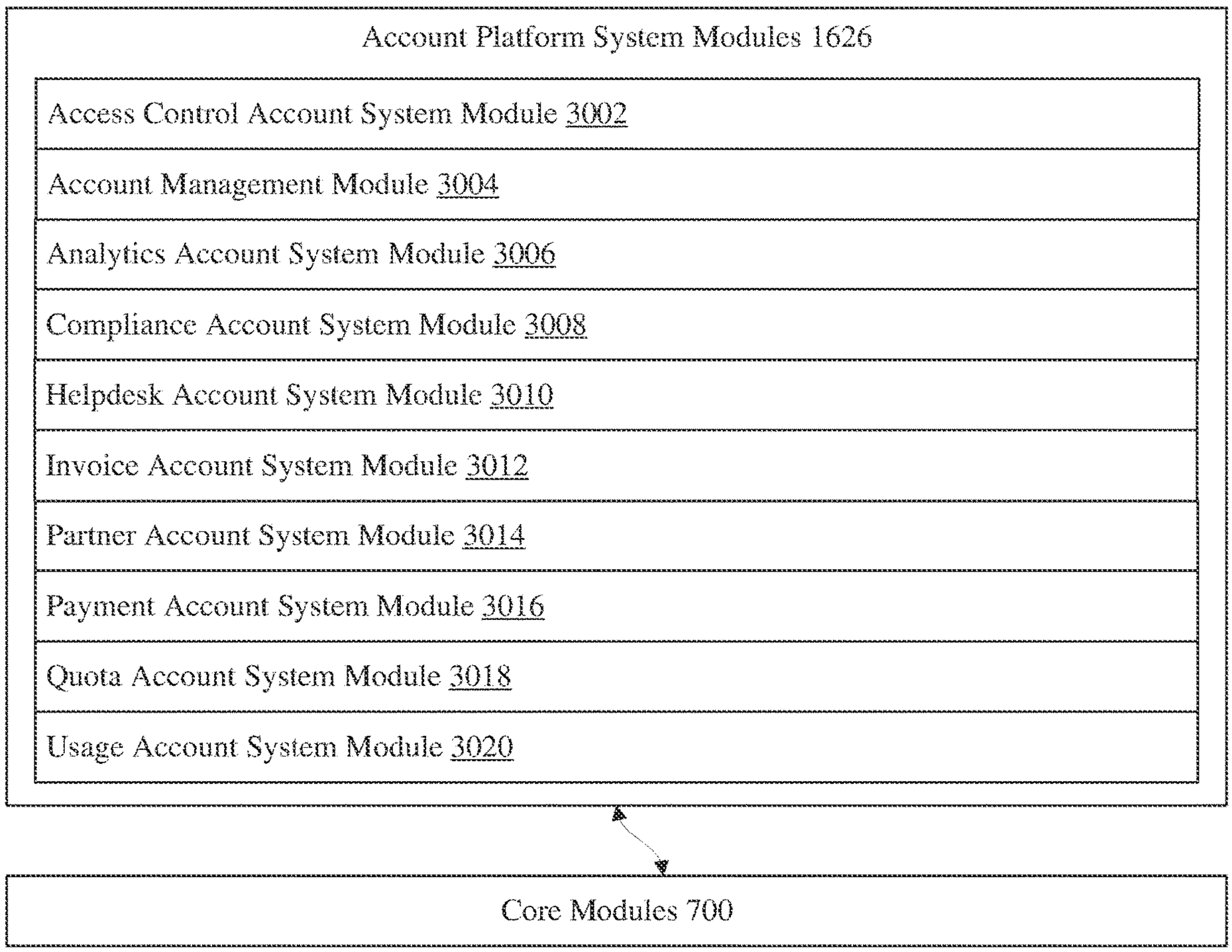

Account Platform System Modules 1626
Access Control Account System Module 3002
Account Management Module 3004
Analytics Account System Module 3006
Compliance Account System Module 3008
Helpdesk Account System Module 3010
Invoice Account System Module 3012
Partner Account System Module 3014
Payment Account System Module 3016
Quota Account System Module 3018
Usage Account System Module 3020
Core Modules 700

FIGURE 30

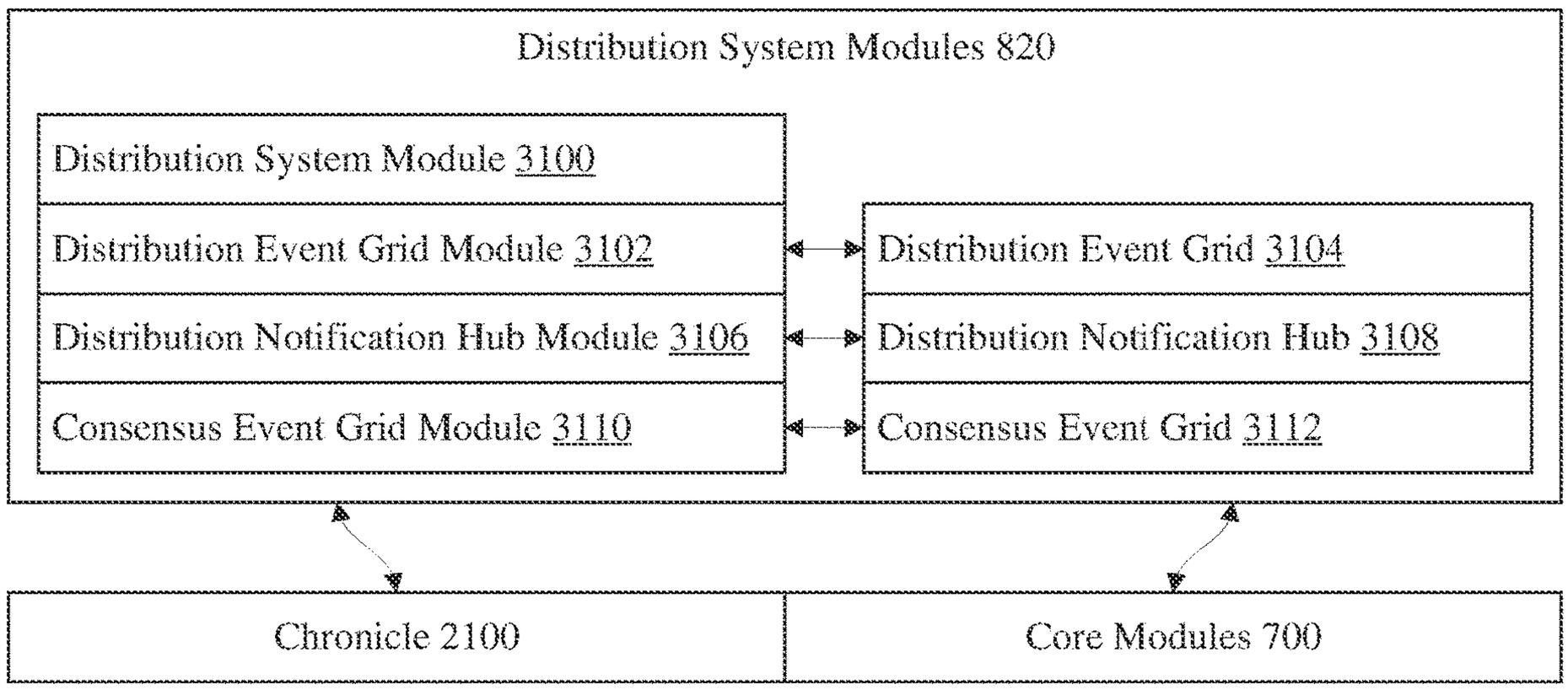

Distribution System Modules 820
Distribution System Module 3100
Distribution Event Grid Module 3102
Distribution Event Grid 3104
Distribution Notification Hub Module 3106
Distribution Notification Hub 3108
Consensus Event Grid Module 3110
Consensus Event Grid 3112
Chronicle 2100
Core Modules 700

FIGURE 31

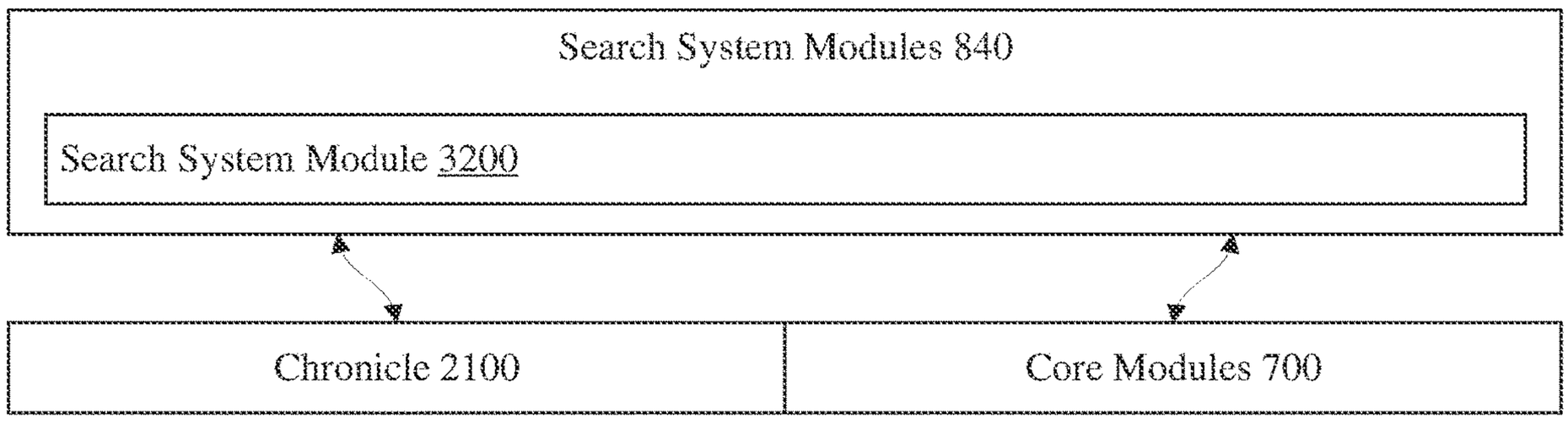

Search System Modules 840
Search System Module 3200
Chronicle 2100
Core Modules 700

FIGURE 32

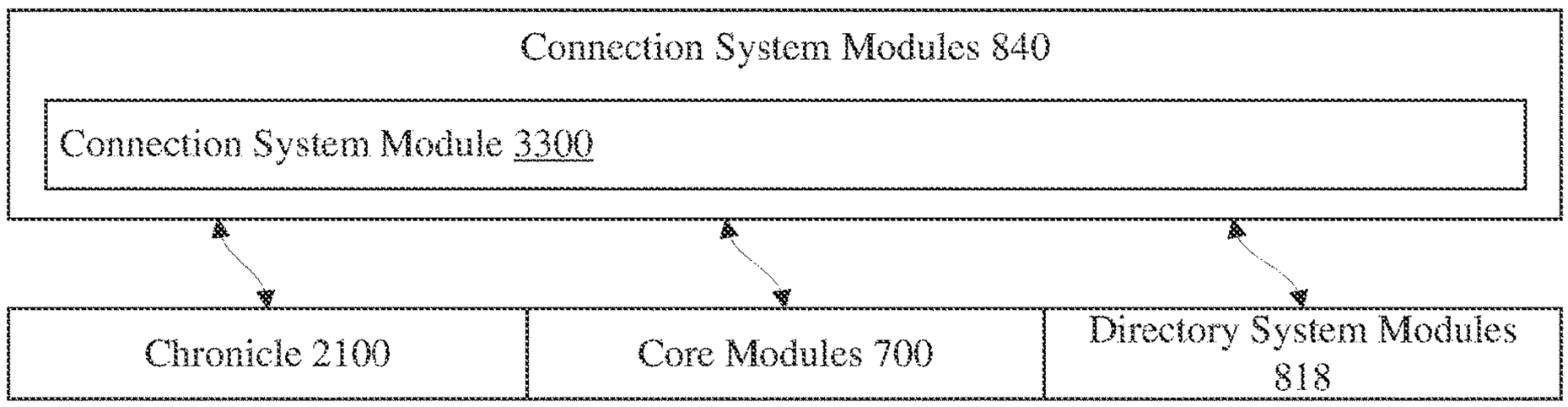

Connection System Modules 840
Connection System Module 3300
Chronicle 2100
Core Modules 700
Directory System Modules 818

FIGURE 33

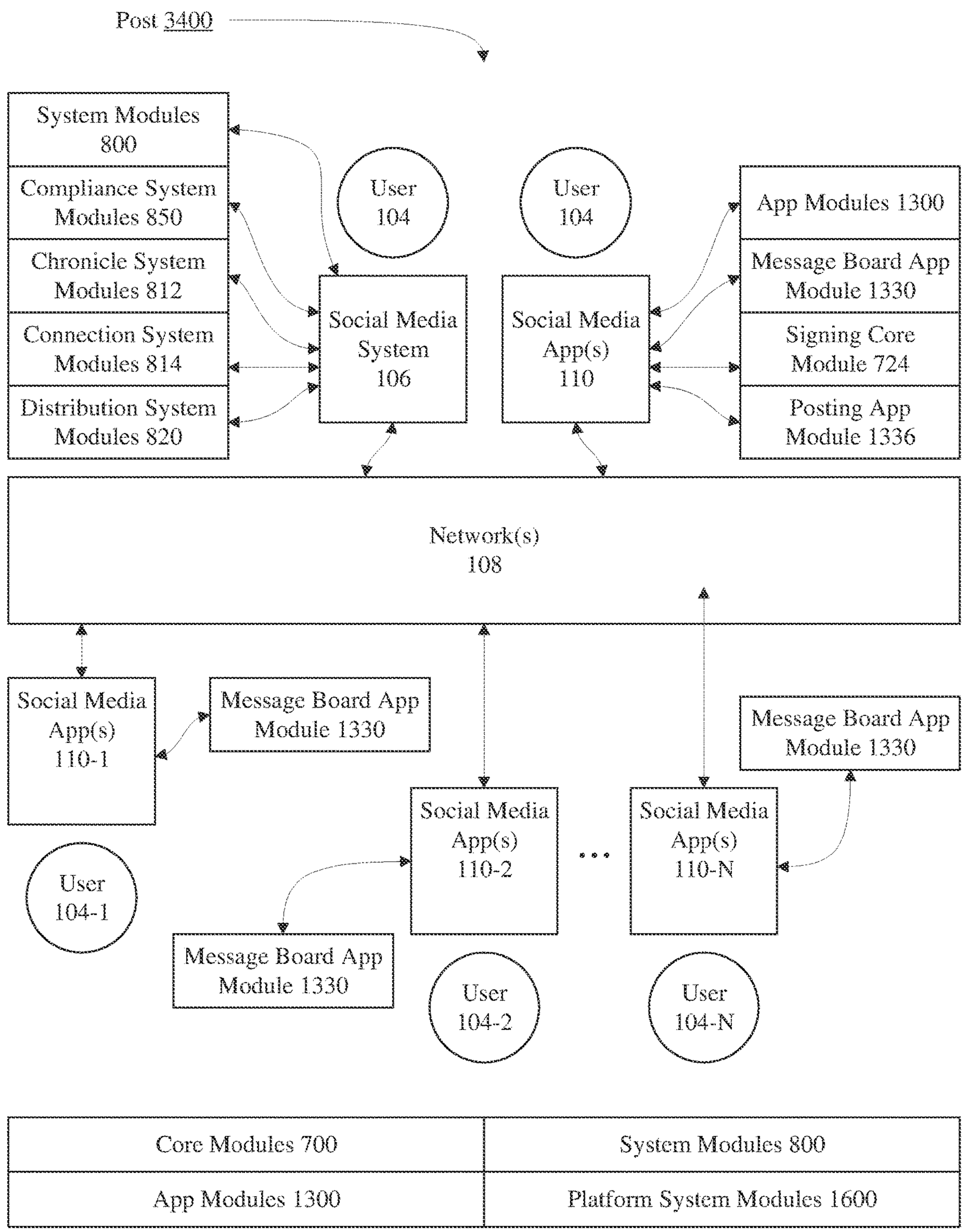

Post 3400
System Modules 800
Compliance System Modules 850
Chronicle System Modules 812
Connection System Modules 814
Distribution System Modules 820
User 104
User 104
Social Media System 106
Social Media App(s) 110
App Modules 1300
Message Board App Module 1330
Signing Core Module 724
Posting App Module 1336
Network(s) 108
Social Media App(s) 110-1
Message Board App Module 1330
User 104-1
Message Board App Module 1330
Social Media App(s) 110-2
User 104-2
Social Media App(s) 110-N
User 104-N
Message Board App Module 1330
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600

FIGURE 34

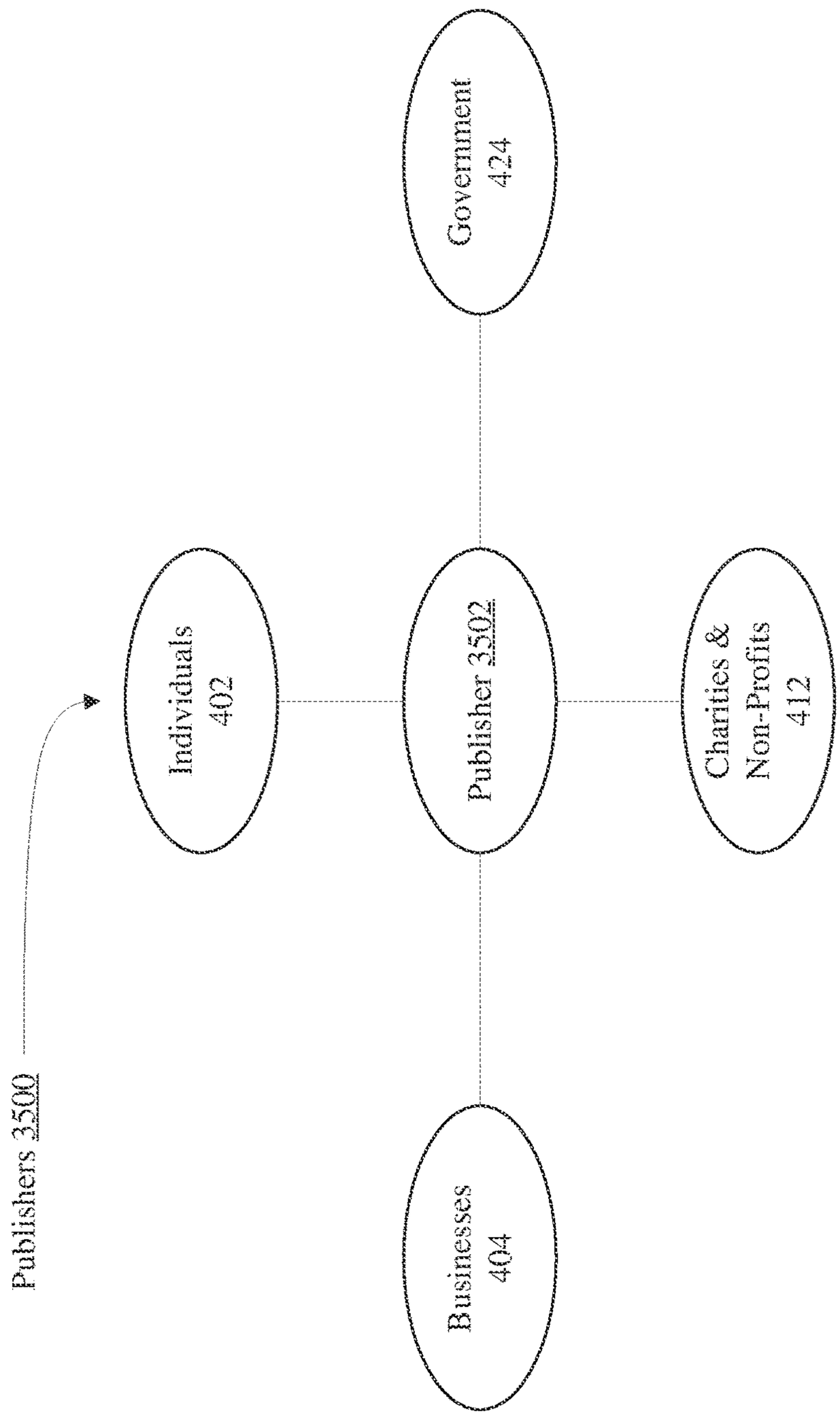

Publishers 3500
Individuals 402
Businesses 404
Government 424
Publisher 3502
Charities & Non-Profits 412

FIGURE 35

Platform Tenets 3600
Complete Traceability 3602
Complete Transparency 3604
Fair Intrinsic Value 3606
Integrity is the Currency 3608
Level Playing Field 3610
Permanent Public Record 3612
Platform Anti-Counterfeiting Measures 3614
Public Archiving 3616
Public Auditing 3618
Records are Signed 3620
Right of First Refusal 3622
Users are Known 3624
Users are Verified 3626
Users Get Paid for their Content 3628
Content is Verified 3630

FIGURE 36

Publishable Content Types 3700

Announcements 3702	Recantation 3732
Broadcast 3704	Retraction 3734
Business 3706	Rhetoric 3736
Calendar of Events 3708	Streaming 3738
Circular Ads 3710	Sports 3740
Comics 3712	Subject Based 3742
Crossword Puzzles 3714	Other 3744
Classified Ads 3716	This Day in History 3746
Display Ads 3718	Advice 3748
Editorial/Opinion 3720	
Features 3722	
Medium Based 3724	
News 3726	
Notifications 3728	
IANA Media Type Based 3730	

FIGURE 37

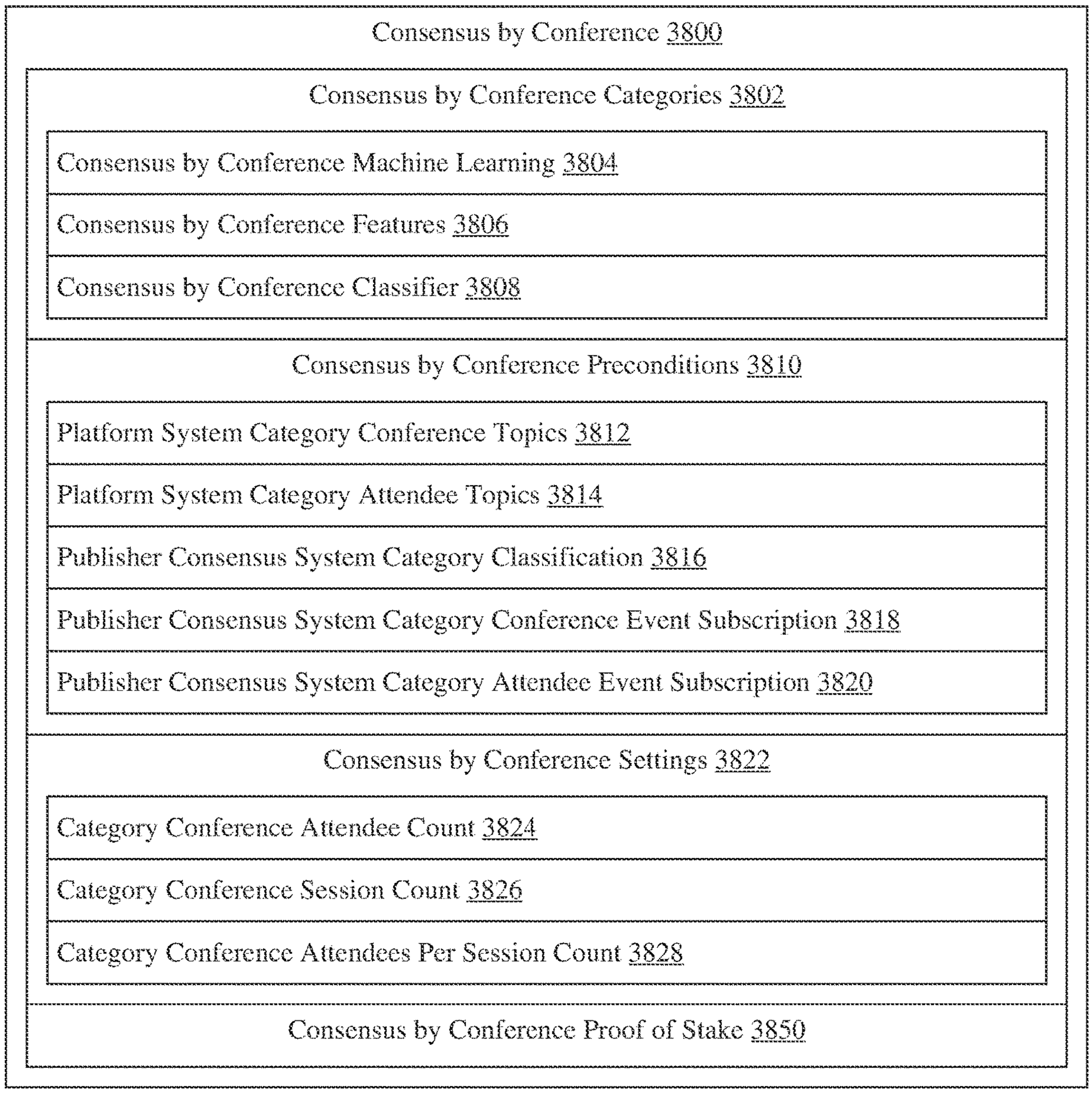

Consensus by Conference 3800
Consensus by Conference Categories 3802
Consensus by Conference Machine Learning 3804
Consensus by Conference Features 3806
Consensus by Conference Classifier 3808
Consensus by Conference Preconditions 3810
Platform System Category Conference Topics 3812
Platform System Category Attendee Topics 3814
Publisher Consensus System Category Classification 3816
Publisher Consensus System Category Conference Event Subscription 3818
Publisher Consensus System Category Attendee Event Subscription 3820
Consensus by Conference Settings 3822
Category Conference Attendee Count 3824
Category Conference Session Count 3826
Category Conference Attendees Per Session Count 3828
Consensus by Conference Proof of Stake 3850

FIGURE 38

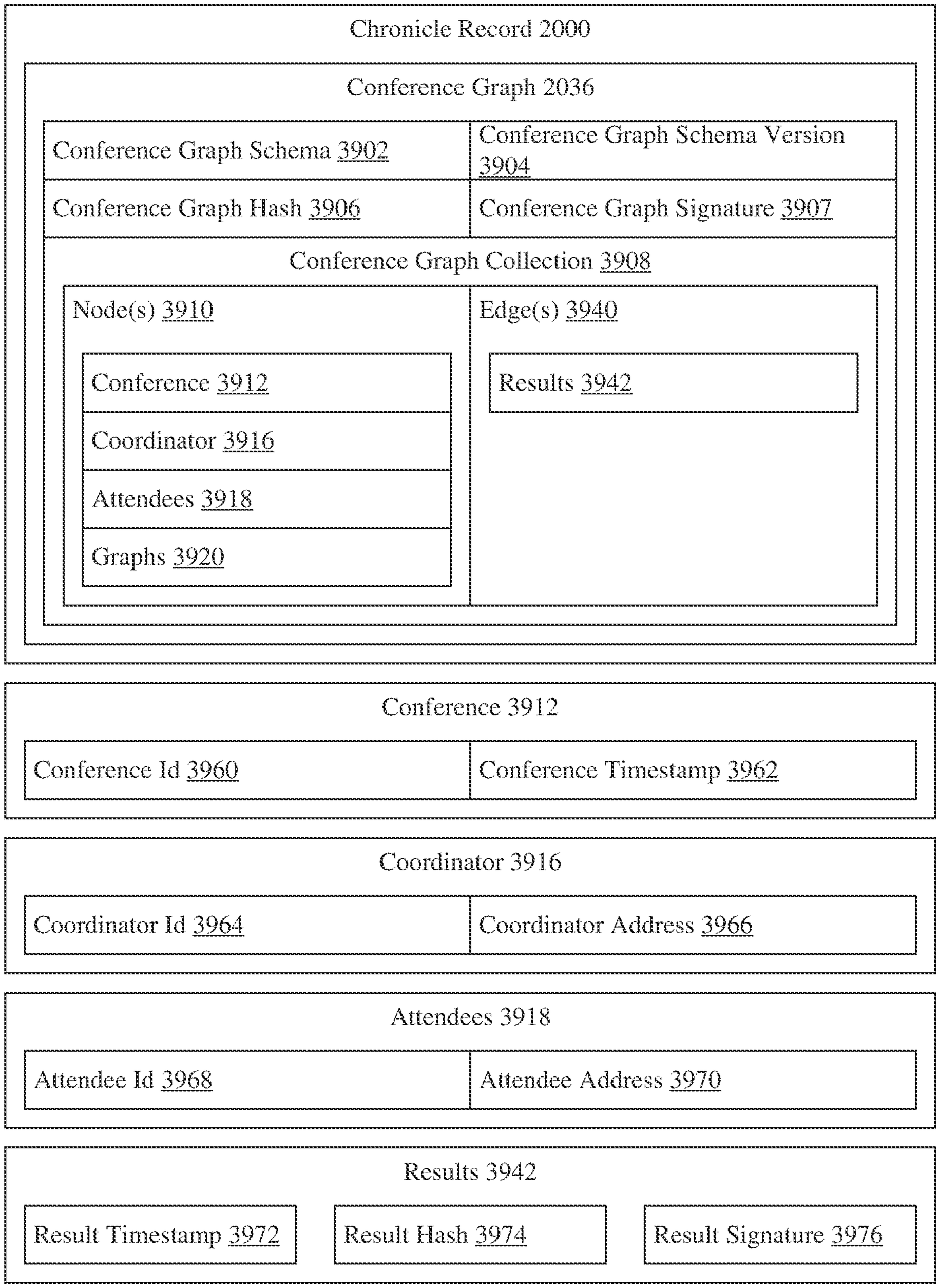

Chronicle Record 2000
Conference Graph 2036
Conference Graph Schema 3902
Conference Graph Schema Version 3904
Conference Graph Hash 3906
Conference Graph Signature 3907
Conference Graph Collection 3908
Node(s) 3910
Conference 3912
Coordinator 3916
Attendees 3918
Graphs 3920
Edge(s) 3940
Results 3942
Conference 3912
Conference Id 3960
Conference Timestamp 3962
Coordinator 3916
Coordinator Id 3964
Coordinator Address 3966
Attendees 3918
Attendee Id 3968
Attendee Address 3970
Results 3942
Result Timestamp 3972
Result Hash 3974
Result Signature 3976

FIGURE 39

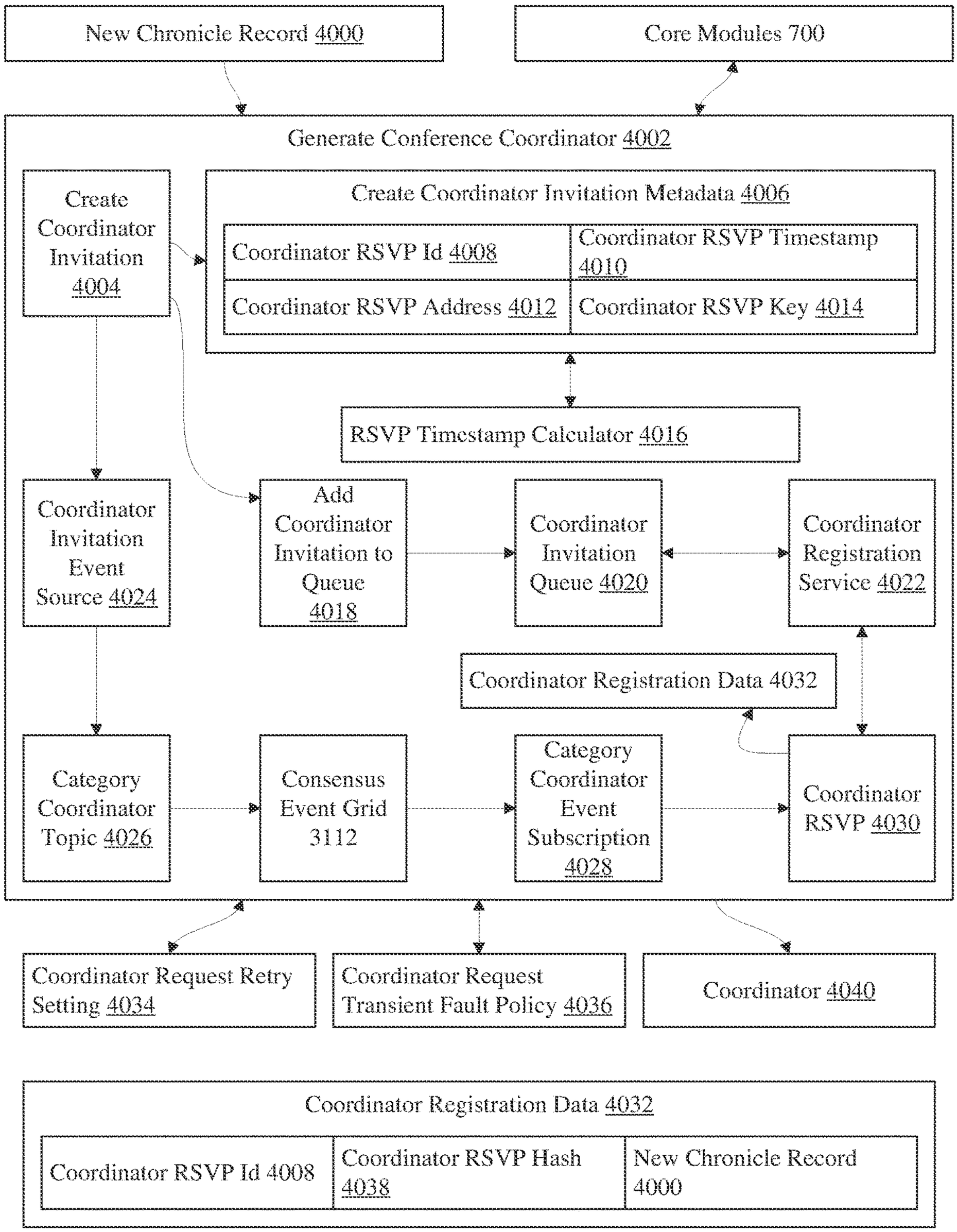

New Chronicle Record 4000
Core Modules 700
Generate Conference Coordinator 4002
Create Coordinator Invitation 4004
Create Coordinator Invitation Metadata 4006
Coordinator RSVP Id 4008
Coordinator RSVP Timestamp 4010
Coordinator RSVP Address 4012
Coordinator RSVP Key 4014
RSVP Timestamp Calculator 4016
Coordinator Invitation Event Source 4024
Add Coordinator Invitation to Queue 4018
Coordinator Invitation Queue 4020
Coordinator Registration Service 4022
Coordinator Registration Data 4032
Category Coordinator Topic 4026
Consensus Event Grid 3112
Category Coordinator Event Subscription 4028
Coordinator RSVP 4030
Coordinator Request Retry Setting 4034
Coordinator Request Transient Fault Policy 4036
Coordinator 4040
Coordinator Registration Data 4032
Coordinator RSVP Id 4008
Coordinator RSVP Hash 4038
New Chronicle Record 4000

FIGURE 40

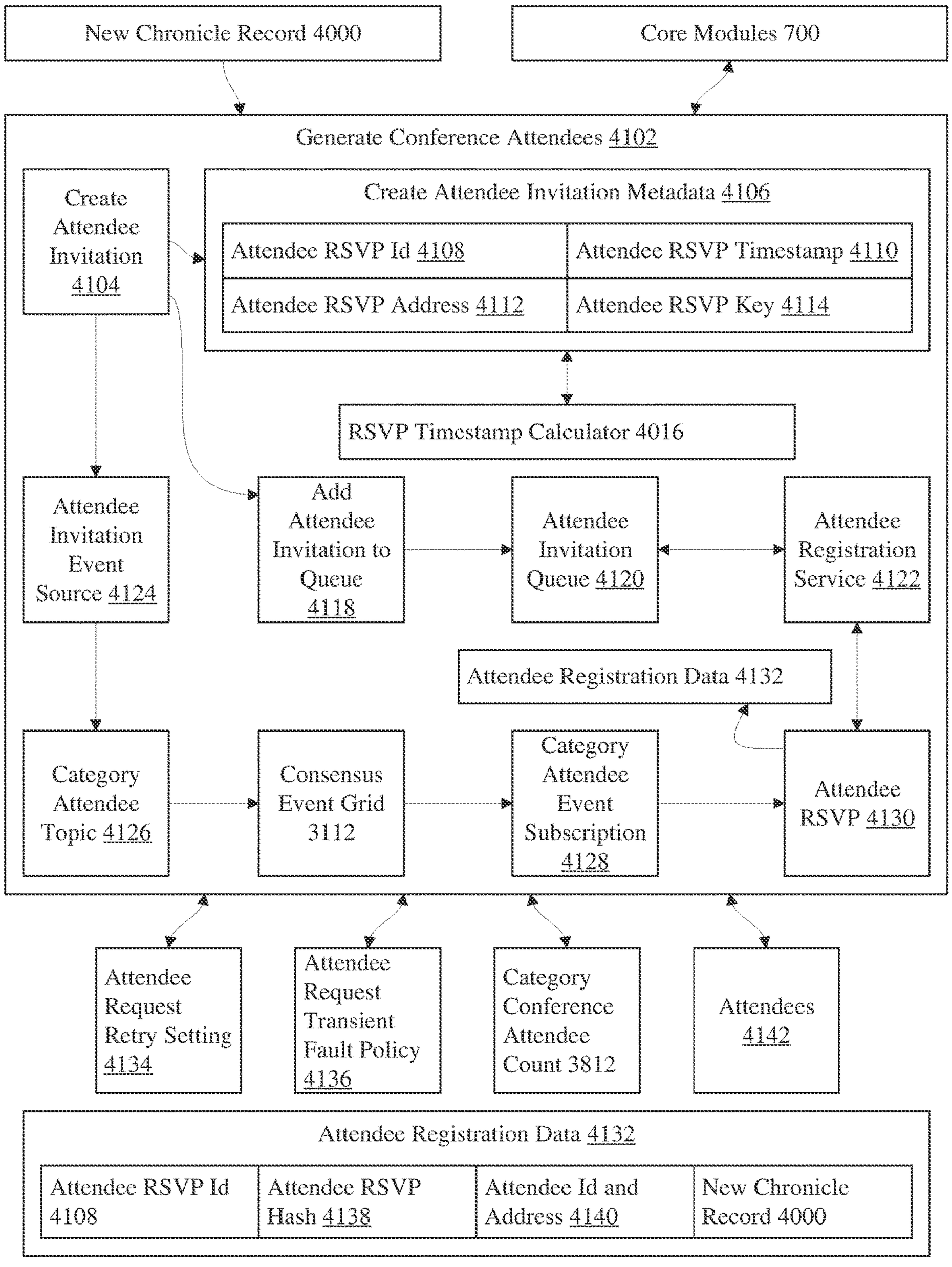

New Chronicle Record 4000
Core Modules 700
Generate Conference Attendees 4102
Create Attendee Invitation 4104
Create Attendee Invitation Metadata 4106
Attendee RSVP Id 4108
Attendee RSVP Timestamp 4110
Attendee RSVP Address 4112
Attendee RSVP Key 4114
RSVP Timestamp Calculator 4016
Attendee Invitation Event Source 4124
Add Attendee Invitation to Queue 4118
Attendee Invitation Queue 4120
Attendee Registration Service 4122
Attendee Registration Data 4132
Category Attendee Topic 4126
Consensus Event Grid 3112
Category Attendee Event Subscription 4128
Attendee RSVP 4130
Attendee Request Retry Setting 4134
Attendee Request Transient Fault Policy 4136
Category Conference Attendee Count 3812
Attendees 4142
Attendee Registration Data 4132
Attendee RSVP Id 4108
Attendee RSVP Hash 4138
Attendee Id and Address 4140
New Chronicle Record 4000

FIGURE 41

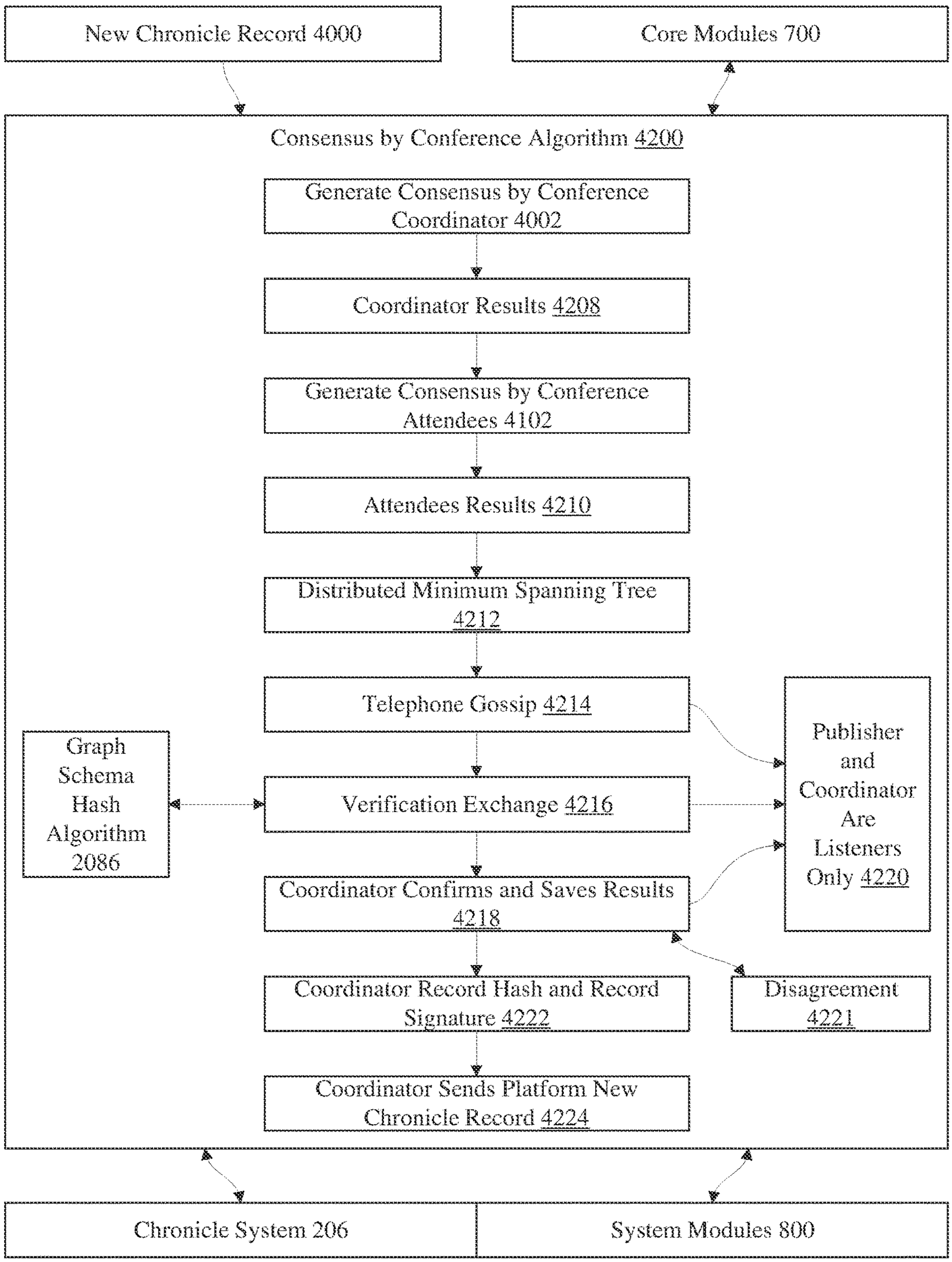

New Chronicle Record 4000
Core Modules 700
Consensus by Conference Algorithm 4200
Generate Consensus by Conference Coordinator 4002
Coordinator Results 4208
Generate Consensus by Conference Attendees 4102
Attendees Results 4210
Distributed Minimum Spanning Tree 4212
Telephone Gossip 4214
Graph Schema Hash Algorithm 2086
Verification Exchange 4216
Publisher and Coordinator Are Listeners Only 4220
Coordinator Confirms and Saves Results 4218
Coordinator Record Hash and Record Signature 4222
Disagreement 4221
Coordinator Sends Platform New Chronicle Record 4224
Chronicle System 206
System Modules 800

FIGURE 42

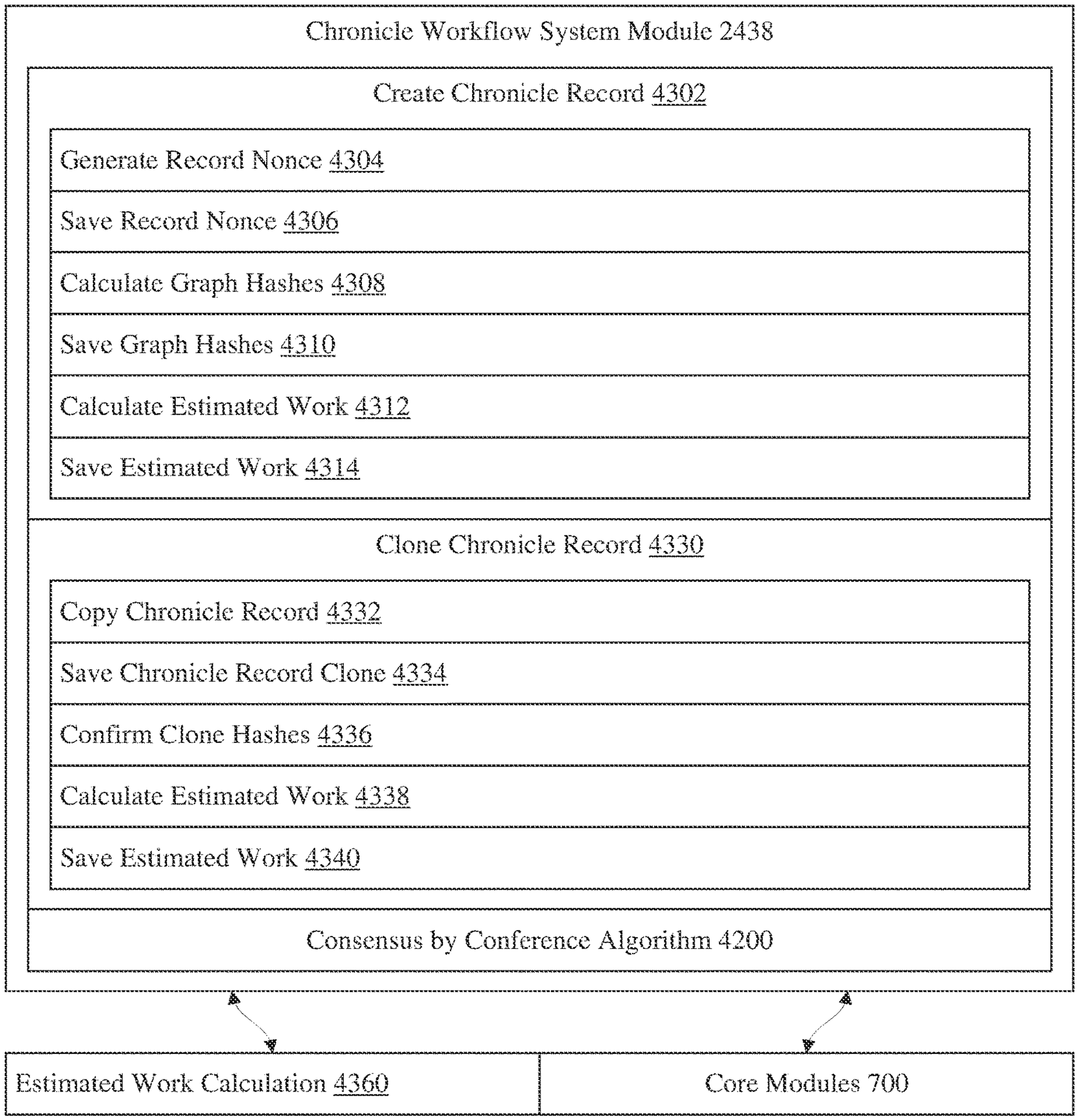

Chronicle Workflow System Module 2438
Create Chronicle Record 4302
Generate Record Nonce 4304
Save Record Nonce 4306
Calculate Graph Hashes 4308
Save Graph Hashes 4310
Calculate Estimated Work 4312
Save Estimated Work 4314
Clone Chronicle Record 4330
Copy Chronicle Record 4332
Save Chronicle Record Clone 4334
Confirm Clone Hashes 4336
Calculate Estimated Work 4338
Save Estimated Work 4340
Consensus by Conference Algorithm 4200
Estimated Work Calculation 4360
Core Modules 700

FIGURE 43

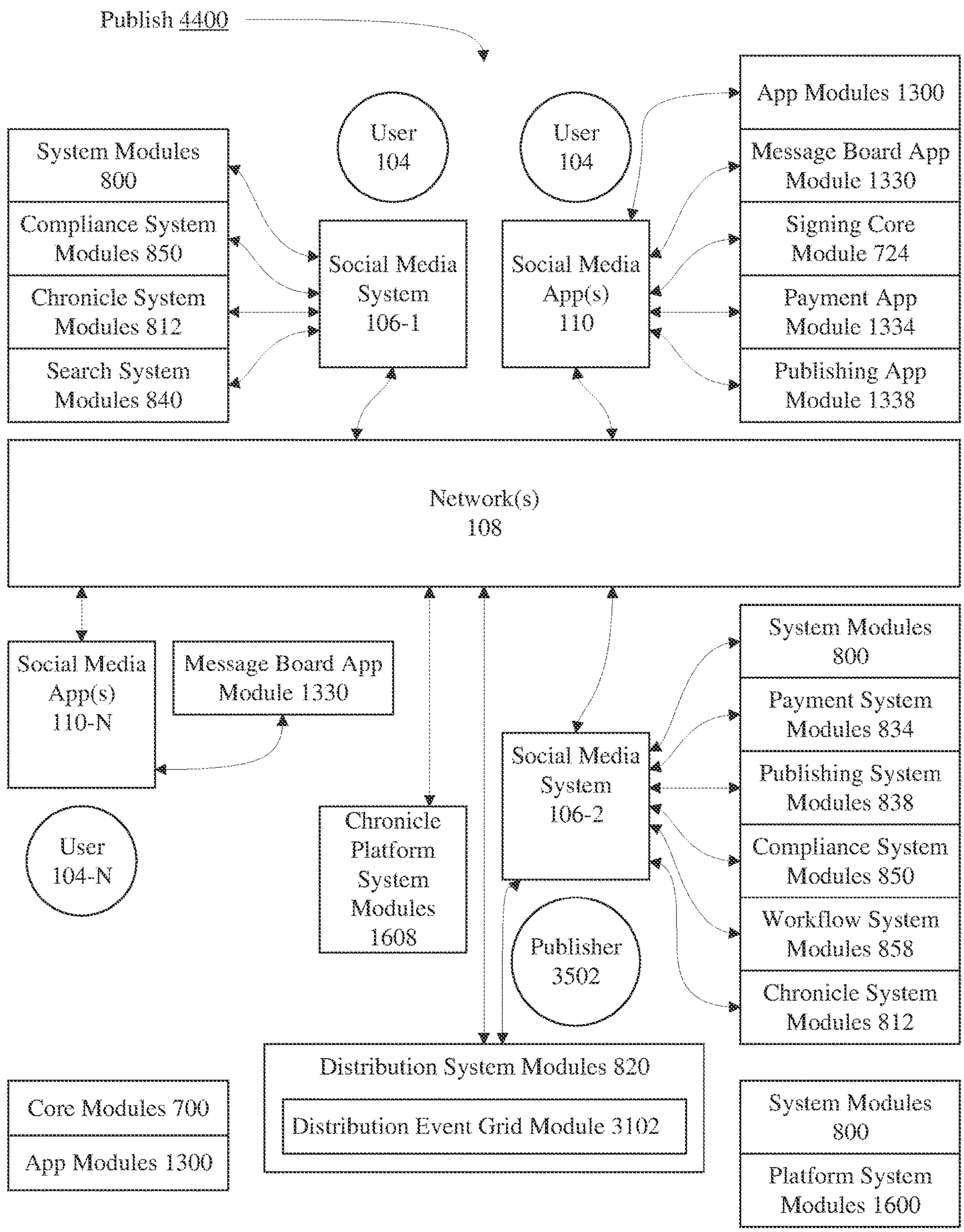

Publish 4400
User 104
User 104
System Modules 800
Compliance System Modules 850
Chronicle System Modules 812
Search System Modules 840
Social Media System 106-1
Social Media App(s) 110
App Modules 1300
Message Board App Module 1330
Signing Core Module 724
Payment App Module 1334
Publishing App Module 1338
Network(s) 108
Social Media App(s) 110-N
Message Board App Module 1330
User 104-N
Chronicle Platform System Modules 1608
Social Media System 106-2
Publisher 3502
System Modules 800
Payment System Modules 834
Publishing System Modules 838
Compliance System Modules 850
Workflow System Modules 858
Chronicle System Modules 812
Distribution System Modules 820
Distribution Event Grid Module 3102
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 44

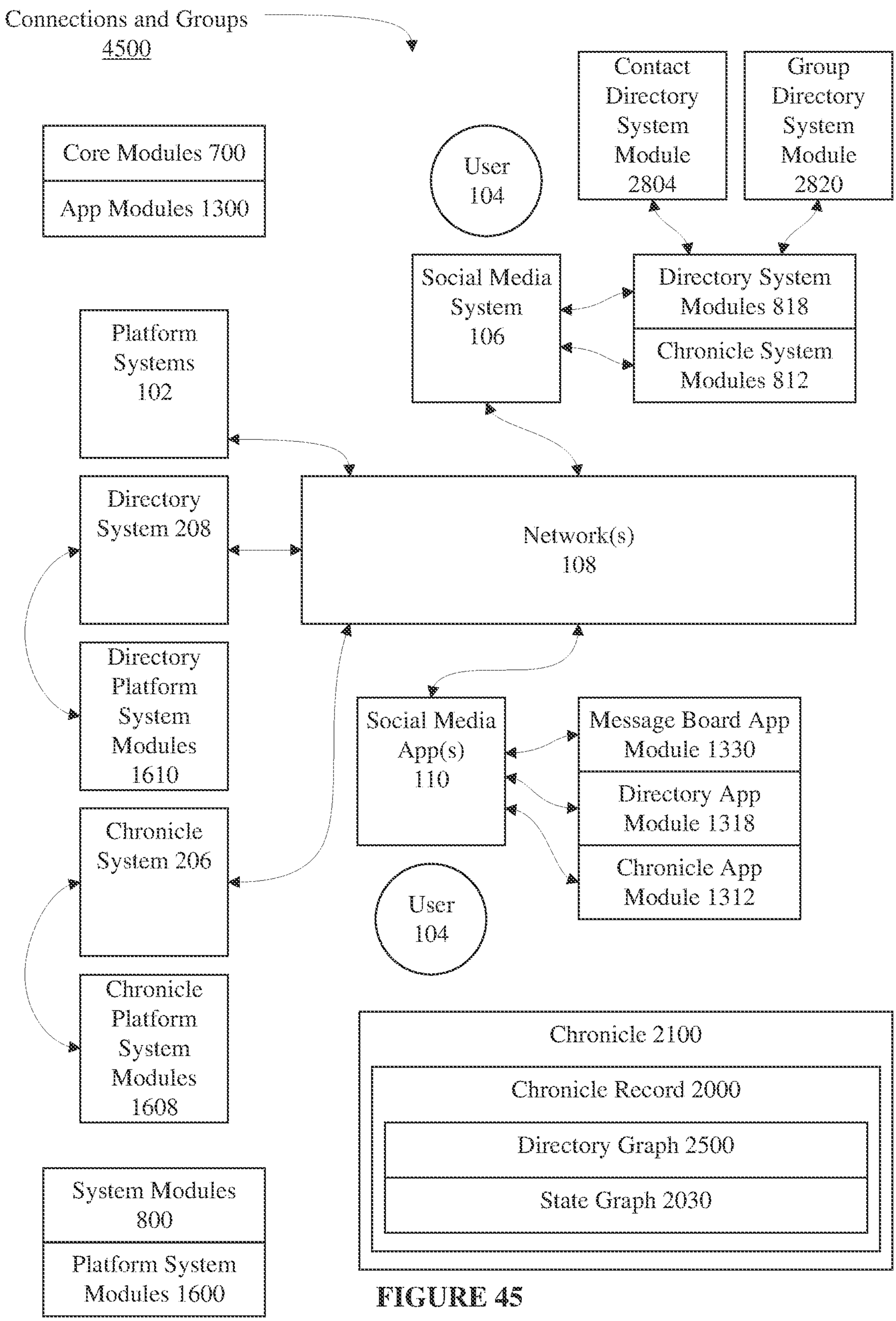

Connections and Groups
4500
Core Modules 700
App Modules 1300
User
104
Contact
Directory
System
Module
2804
Group
Directory
System
Module
2820
Social Media
System
106
Directory System
Modules 818
Chronicle System
Modules 812
Platform
Systems
102
Directory
System 208
Network(s)
108
Directory
Platform
System
Modules
1610
Social Media
App(s)
110
Message Board App
Module 1330
Directory App
Module 1318
Chronicle App
Module 1312
Chronicle
System 206
User
104
Chronicle
Platform
System
Modules
1608
Chronicle 2100
Chronicle Record 2000
Directory Graph 2500
State Graph 2030
System Modules
800
Platform System
Modules 1600

FIGURE 45

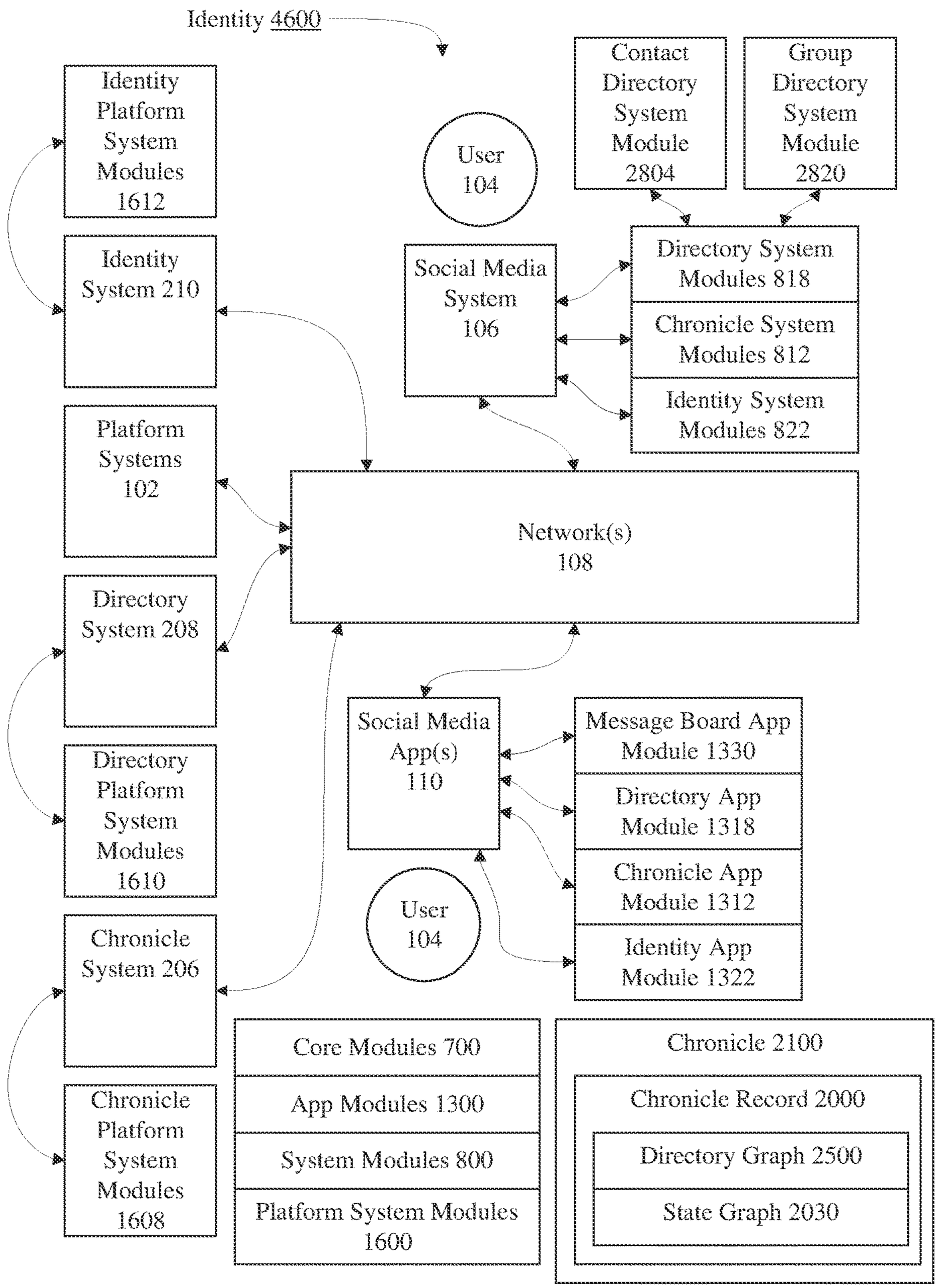

Identity 4600
Identity Platform System Modules 1612
Identity System 210
Platform Systems 102
Directory System 208
Directory Platform System Modules 1610
Chronicle System 206
Chronicle Platform System Modules 1608
User 104
Social Media System 106
Contact Directory System Module 2804
Group Directory System Module 2820
Directory System Modules 818
Chronicle System Modules 812
Identity System Modules 822
Network(s) 108
Social Media App(s) 110
User 104
Message Board App Module 1330
Directory App Module 1318
Chronicle App Module 1312
Identity App Module 1322
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600
Chronicle 2100
Chronicle Record 2000
Directory Graph 2500
State Graph 2030

FIGURE 46

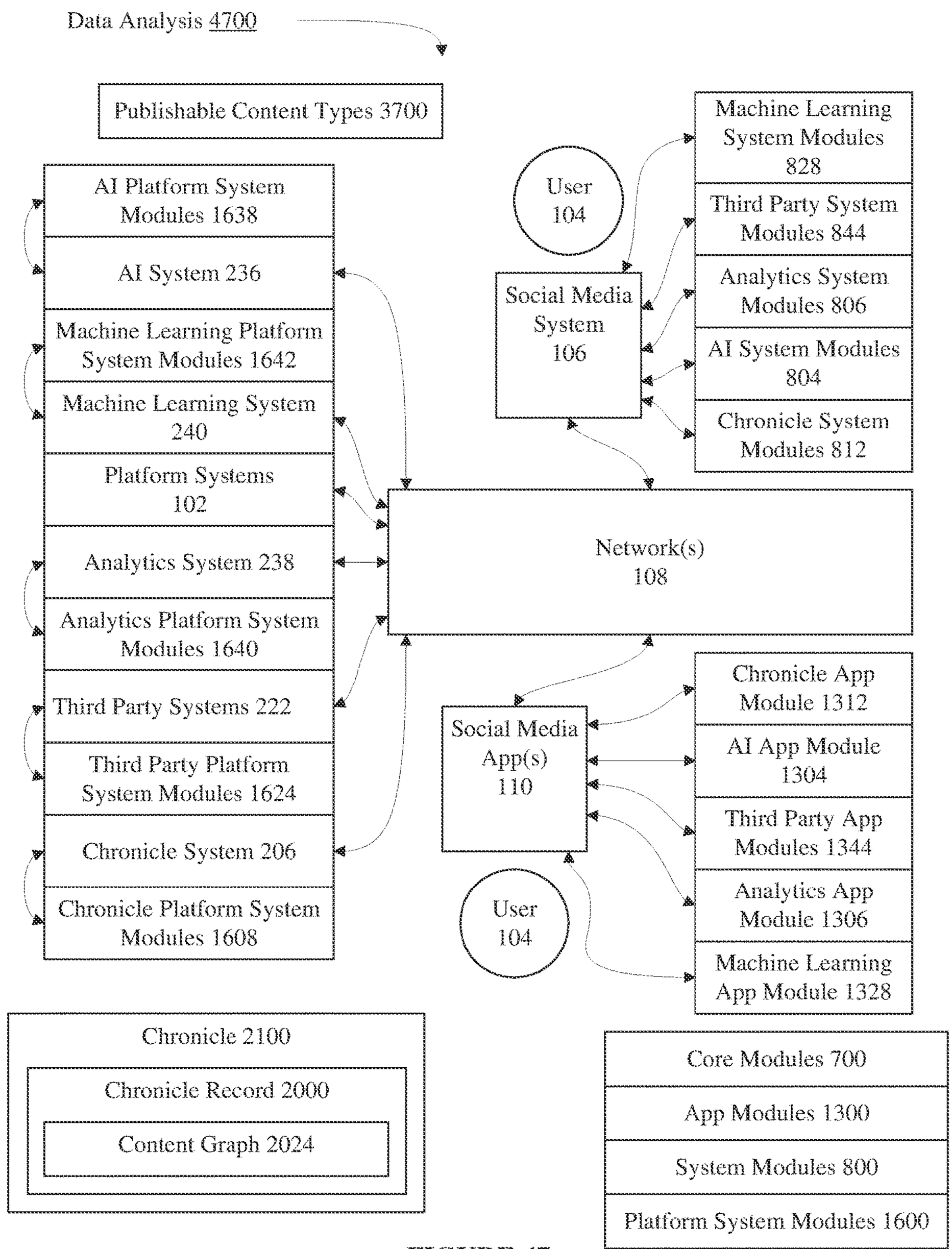

Data Analysis 4700
Publishable Content Types 3700
AI Platform System Modules 1638
AI System 236
Machine Learning Platform System Modules 1642
Machine Learning System 240
Platform Systems 102
Analytics System 238
Analytics Platform System Modules 1640
Third Party Systems 222
Third Party Platform System Modules 1624
Chronicle System 206
Chronicle Platform System Modules 1608
User 104
Social Media System 106
Machine Learning System Modules 828
Third Party System Modules 844
Analytics System Modules 806
AI System Modules 804
Chronicle System Modules 812
Network(s) 108
Social Media App(s) 110
User 104
Chronicle App Module 1312
AI App Module 1304
Third Party App Modules 1344
Analytics App Module 1306
Machine Learning App Module 1328
Chronicle 2100
Chronicle Record 2000
Content Graph 2024
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 47

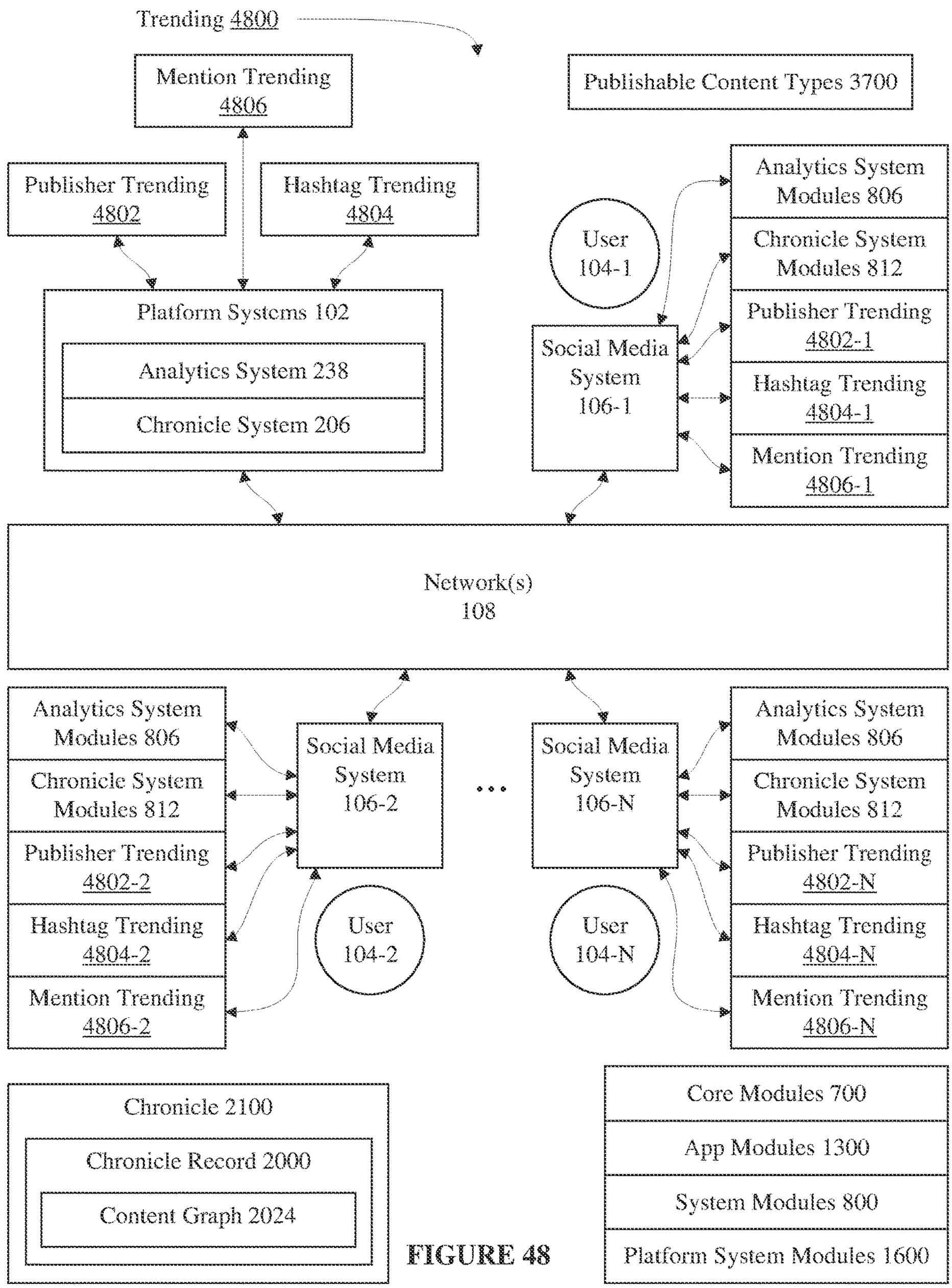

Trending 4800
Mention Trending 4806
Publisher Trending 4802
Hashtag Trending 4804
Platform Systems 102
Analytics System 238
Chronicle System 206
Publishable Content Types 3700
User 104-1
Social Media System 106-1
Analytics System Modules 806
Chronicle System Modules 812
Publisher Trending 4802-1
Hashtag Trending 4804-1
Mention Trending 4806-1
Network(s) 108
Analytics System Modules 806
Chronicle System Modules 812
Publisher Trending 4802-2
Hashtag Trending 4804-2
Mention Trending 4806-2
Social Media System 106-2
User 104-2
...
Social Media System 106-N
User 104-N
Analytics System Modules 806
Chronicle System Modules 812
Publisher Trending 4802-N
Hashtag Trending 4804-N
Mention Trending 4806-N
Chronicle 2100
Chronicle Record 2000
Content Graph 2024
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 48

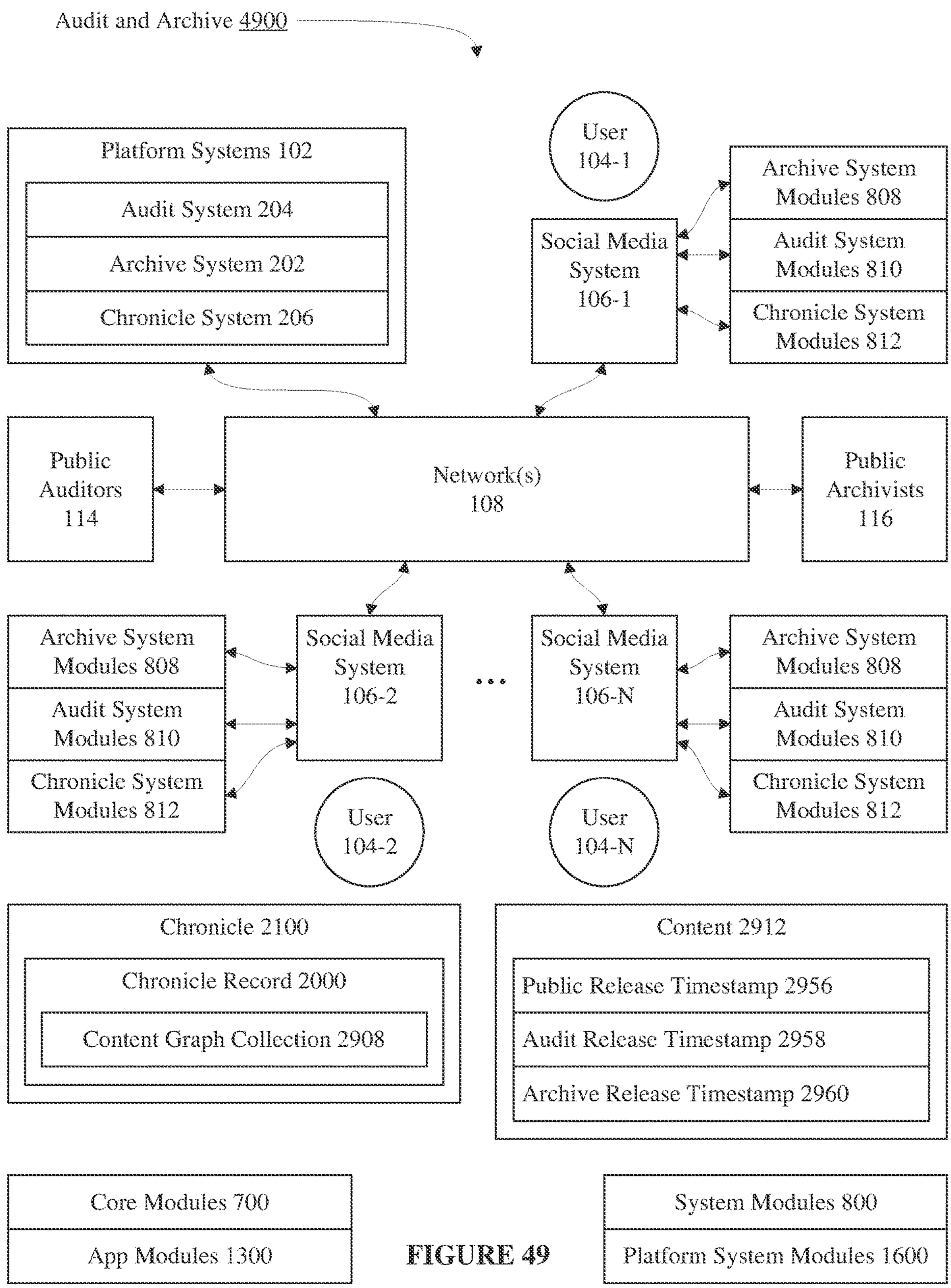

Audit and Archive 4900
Platform Systems 102
Audit System 204
Archive System 202
Chronicle System 206
User 104-1
Social Media System 106-1
Archive System Modules 808
Audit System Modules 810
Chronicle System Modules 812
Public Auditors 114
Network(s) 108
Public Archivists 116
Archive System Modules 808
Audit System Modules 810
Chronicle System Modules 812
Social Media System 106-2
User 104-2
...
Social Media System 106-N
User 104-N
Archive System Modules 808
Audit System Modules 810
Chronicle System Modules 812
Chronicle 2100
Chronicle Record 2000
Content Graph Collection 2908
Content 2912
Public Release Timestamp 2956
Audit Release Timestamp 2958
Archive Release Timestamp 2960
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 49

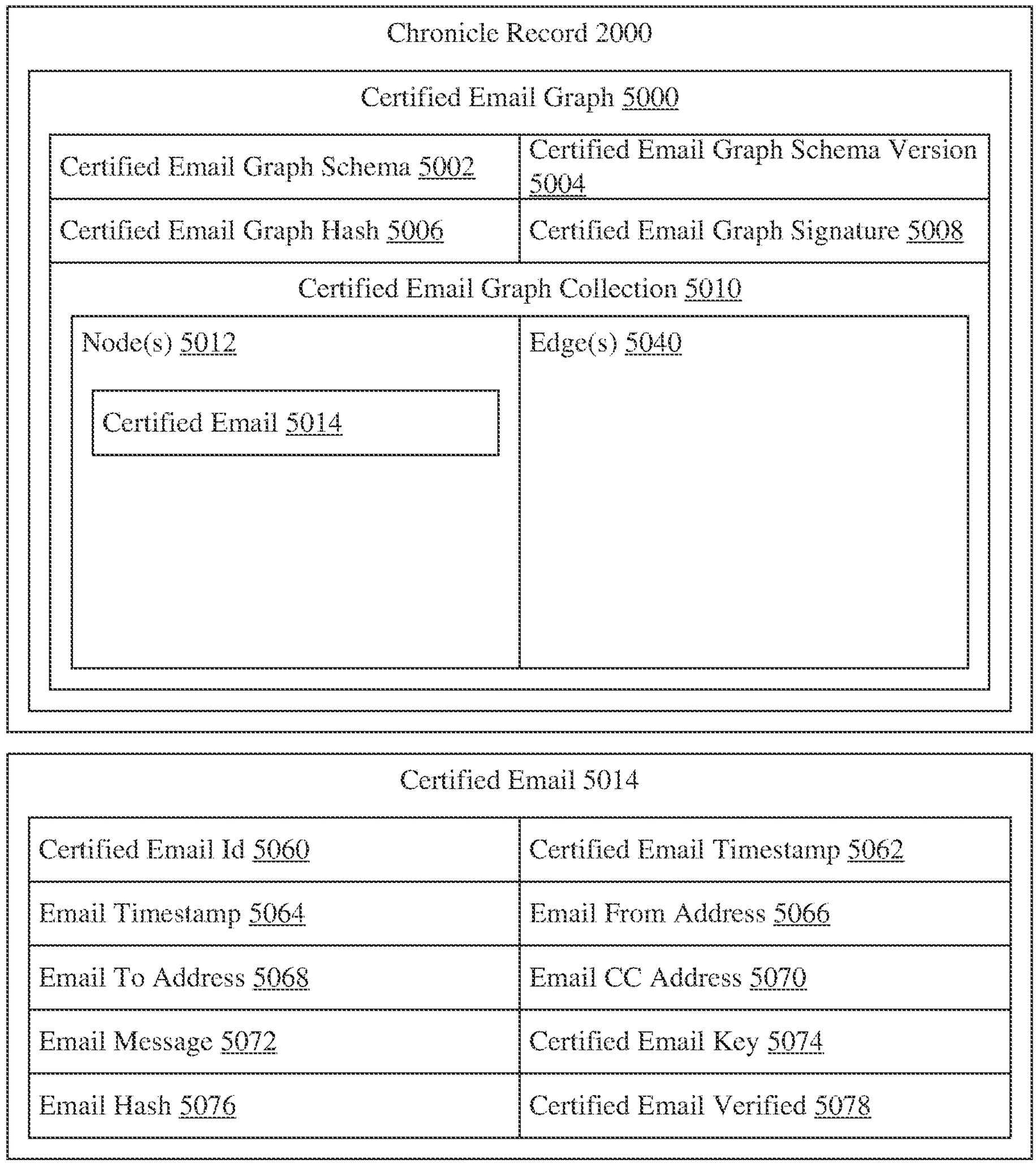

Chronicle Record 2000
Certified Email Graph 5000
Certified Email Graph Schema 5002
Certified Email Graph Schema Version 5004
Certified Email Graph Hash 5006
Certified Email Graph Signature 5008
Certified Email Graph Collection 5010
Node(s) 5012
Certified Email 5014
Edge(s) 5040
Certified Email 5014
Certified Email Id 5060
Certified Email Timestamp 5062
Email Timestamp 5064
Email From Address 5066
Email To Address 5068
Email CC Address 5070
Email Message 5072
Certified Email Key 5074
Email Hash 5076
Certified Email Verified 5078

FIGURE 50

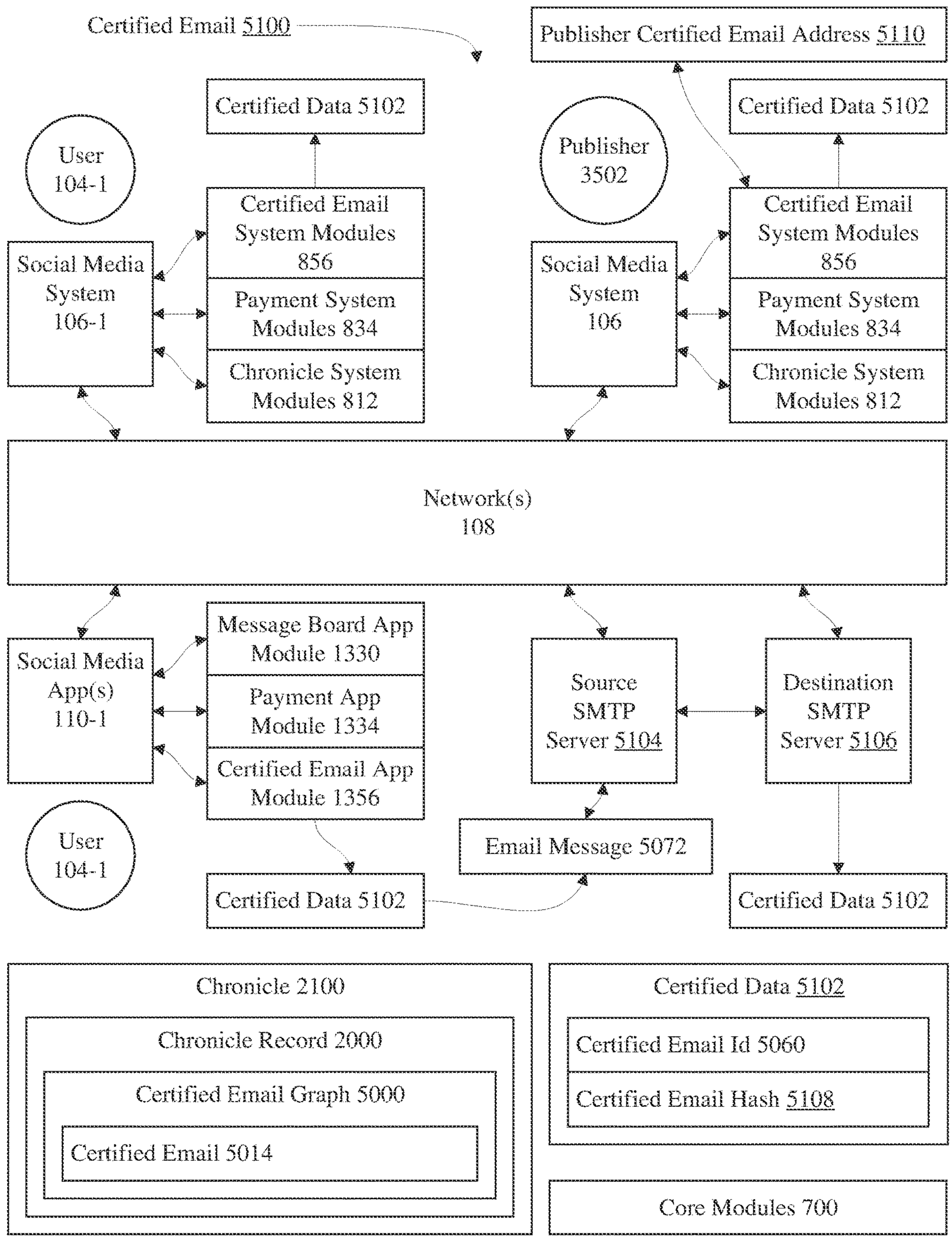

Certified Email 5100
Publisher Certified Email Address 5110
Certified Data 5102
Certified Data 5102
User 104-1
Publisher 3502
Certified Email System Modules 856
Certified Email System Modules 856
Social Media System 106-1
Social Media System 106
Payment System Modules 834
Payment System Modules 834
Chronicle System Modules 812
Chronicle System Modules 812
Network(s) 108
Social Media App(s) 110-1
Message Board App Module 1330
Payment App Module 1334
Certified Email App Module 1356
Source SMTP Server 5104
Destination SMTP Server 5106
User 104-1
Email Message 5072
Certified Data 5102
Certified Data 5102
Chronicle 2100
Chronicle Record 2000
Certified Email Graph 5000
Certified Email 5014
Certified Data 5102
Certified Email Id 5060
Certified Email Hash 5108
Core Modules 700

FIGURE 51

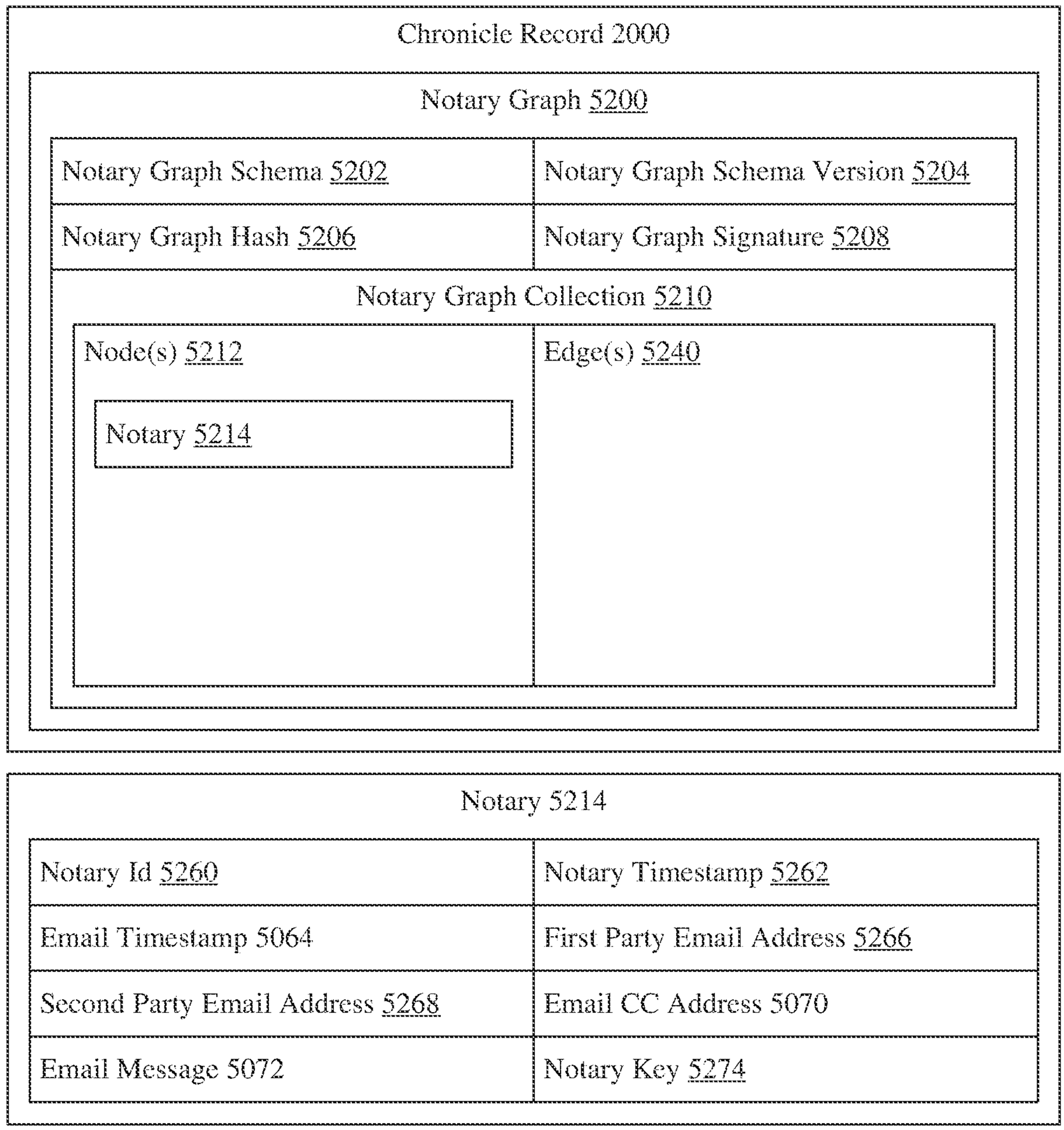

Chronicle Record 2000
Notary Graph 5200
Notary Graph Schema 5202
Notary Graph Schema Version 5204
Notary Graph Hash 5206
Notary Graph Signature 5208
Notary Graph Collection 5210
Node(s) 5212
Notary 5214
Edge(s) 5240
Notary 5214
Notary Id 5260
Notary Timestamp 5262
Email Timestamp 5064
First Party Email Address 5266
Second Party Email Address 5268
Email CC Address 5070
Email Message 5072
Notary Key 5274

FIGURE 52

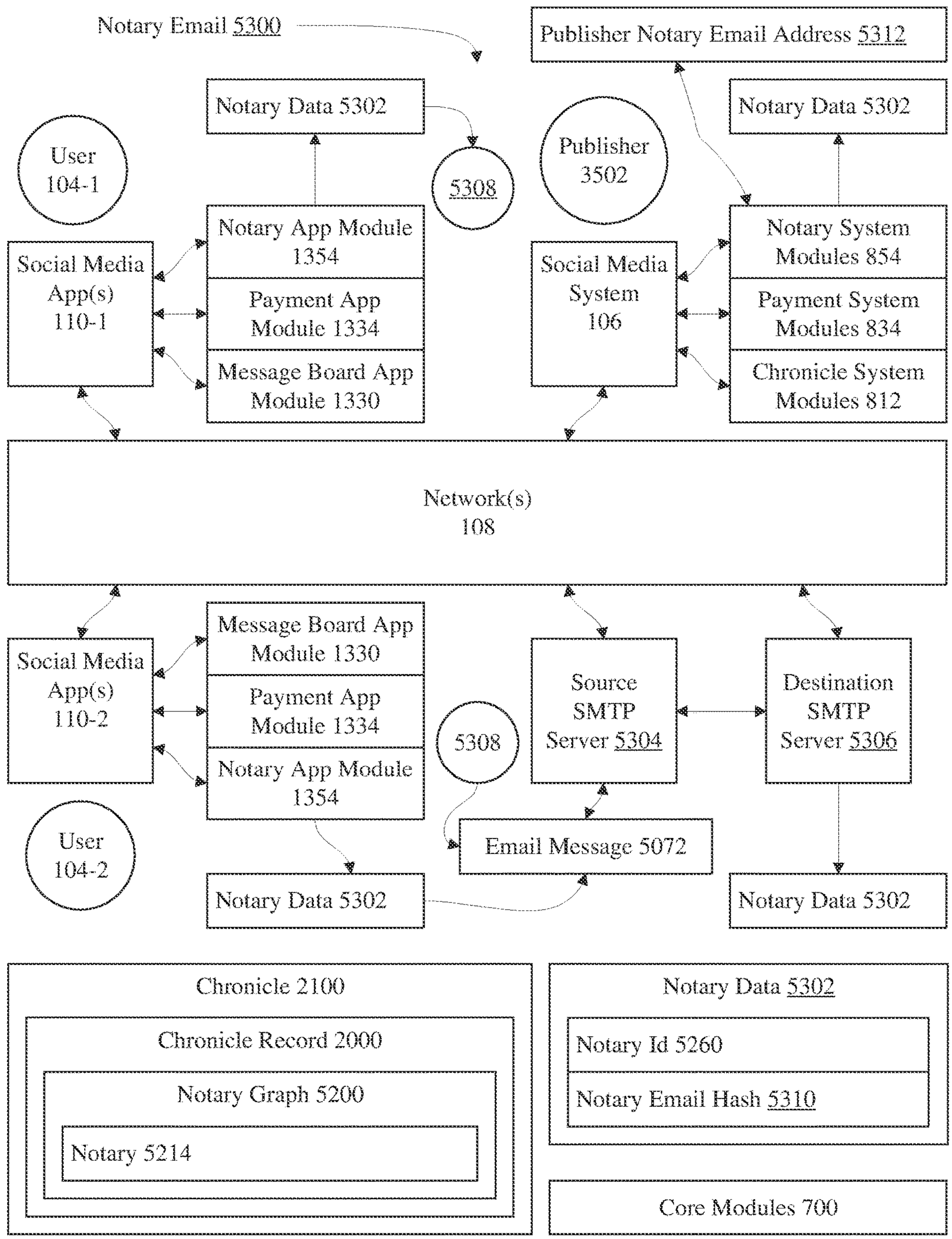

Notary Email 5300
Publisher Notary Email Address 5312
Notary Data 5302
Notary Data 5302
User 104-1
5308
Publisher 3502
Notary App Module 1354
Notary System Modules 854
Social Media App(s) 110-1
Payment App Module 1334
Social Media System 106
Payment System Modules 834
Message Board App Module 1330
Chronicle System Modules 812
Network(s) 108
Social Media App(s) 110-2
Message Board App Module 1330
Payment App Module 1334
Notary App Module 1354
5308
Source SMTP Server 5304
Destination SMTP Server 5306
User 104-2
Email Message 5072
Notary Data 5302
Notary Data 5302
Chronicle 2100
Chronicle Record 2000
Notary Graph 5200
Notary 5214
Notary Data 5302
Notary Id 5260
Notary Email Hash 5310
Core Modules 700

FIGURE 53

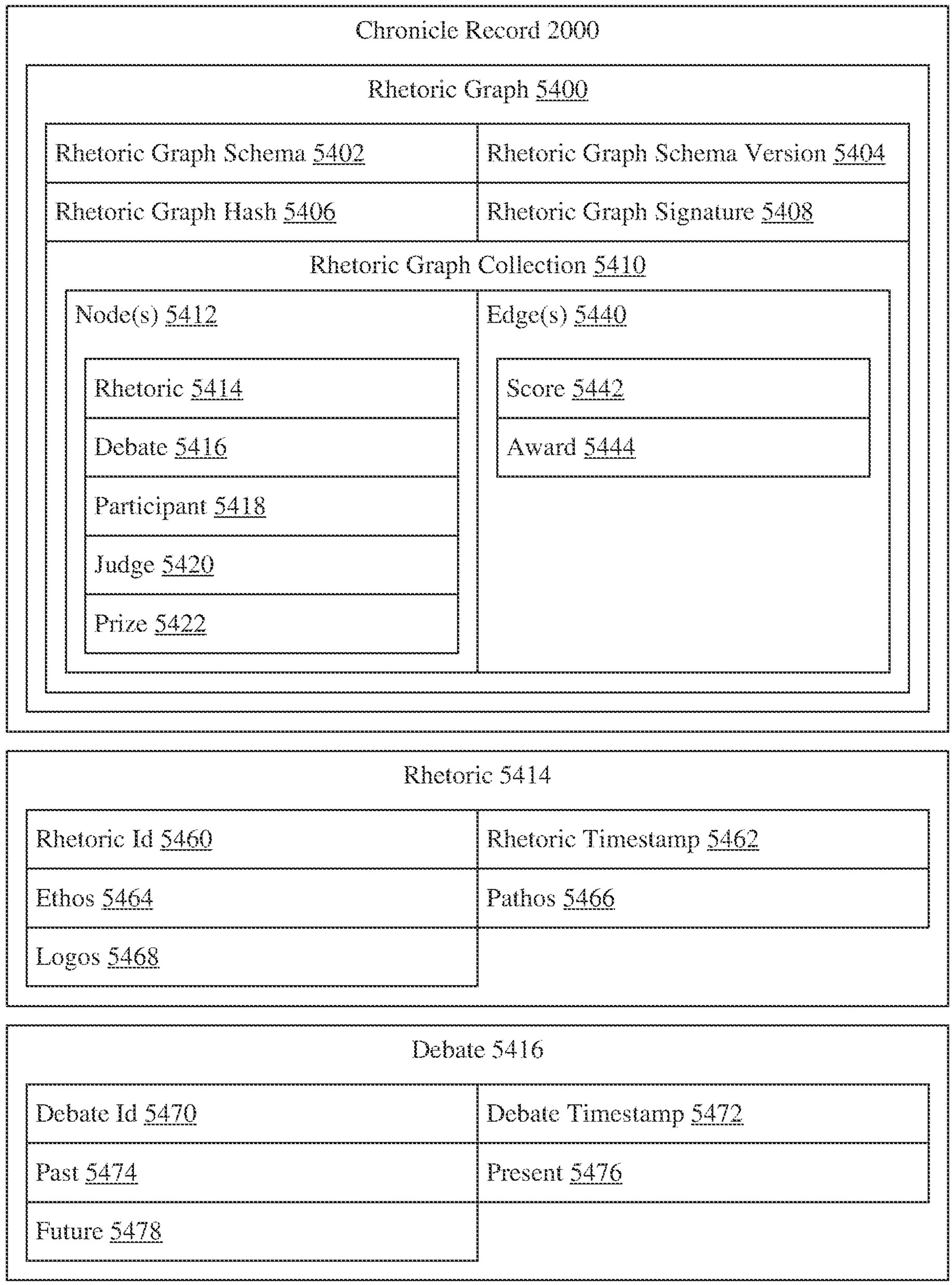

Chronicle Record 2000
Rhetoric Graph 5400
Rhetoric Graph Schema 5402
Rhetoric Graph Schema Version 5404
Rhetoric Graph Hash 5406
Rhetoric Graph Signature 5408
Rhetoric Graph Collection 5410
Node(s) 5412
Rhetoric 5414
Debate 5416
Participant 5418
Judge 5420
Prize 5422
Edge(s) 5440
Score 5442
Award 5444
Rhetoric 5414
Rhetoric Id 5460
Rhetoric Timestamp 5462
Ethos 5464
Pathos 5466
Logos 5468
Debate 5416
Debate Id 5470
Debate Timestamp 5472
Past 5474
Present 5476
Future 5478

FIGURE 54

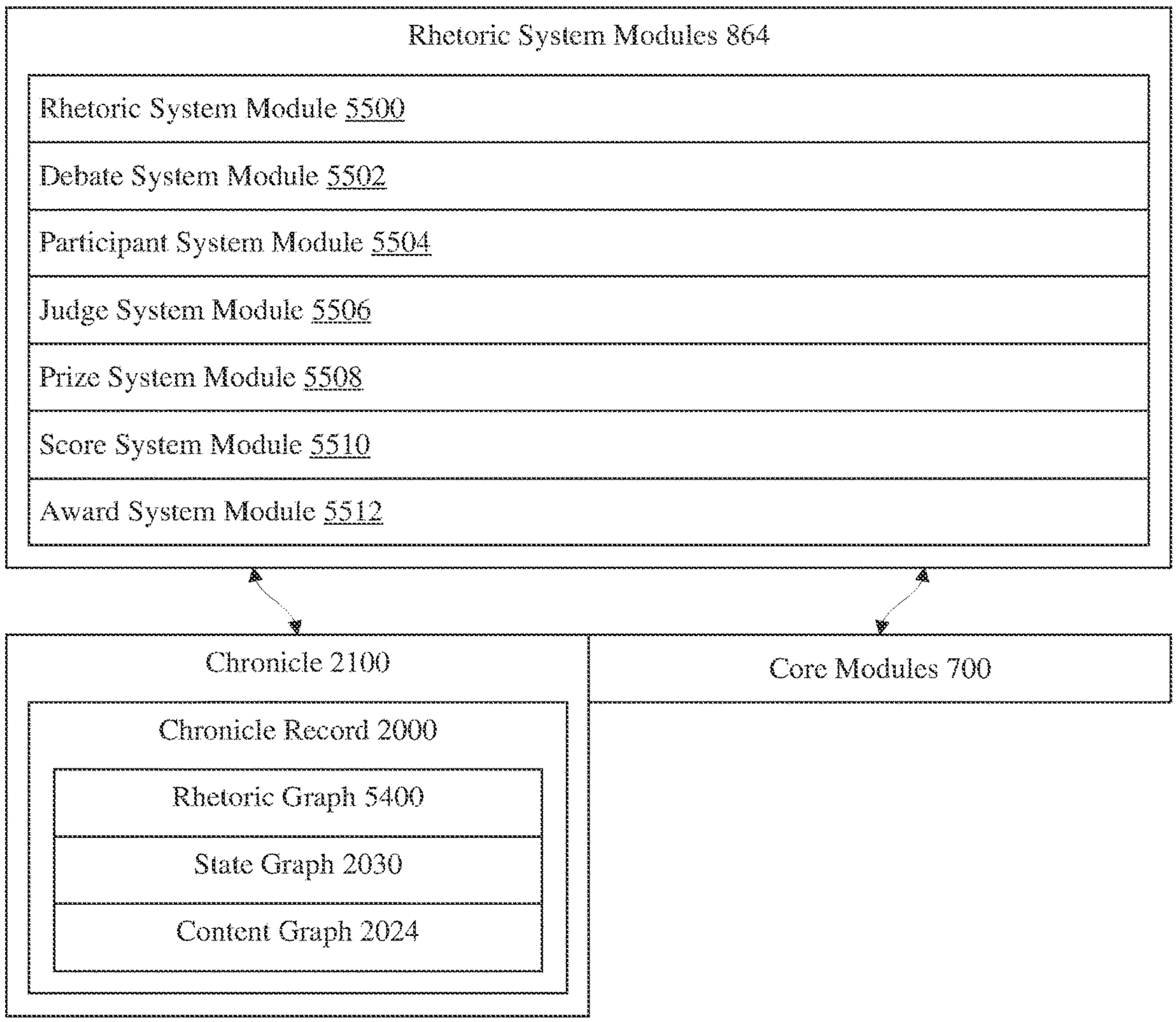

Rhetoric System Modules 864
Rhetoric System Module 5500
Debate System Module 5502
Participant System Module 5504
Judge System Module 5506
Prize System Module 5508
Score System Module 5510
Award System Module 5512
Chronicle 2100
Core Modules 700
Chronicle Record 2000
Rhetoric Graph 5400
State Graph 2030
Content Graph 2024

FIGURE 55

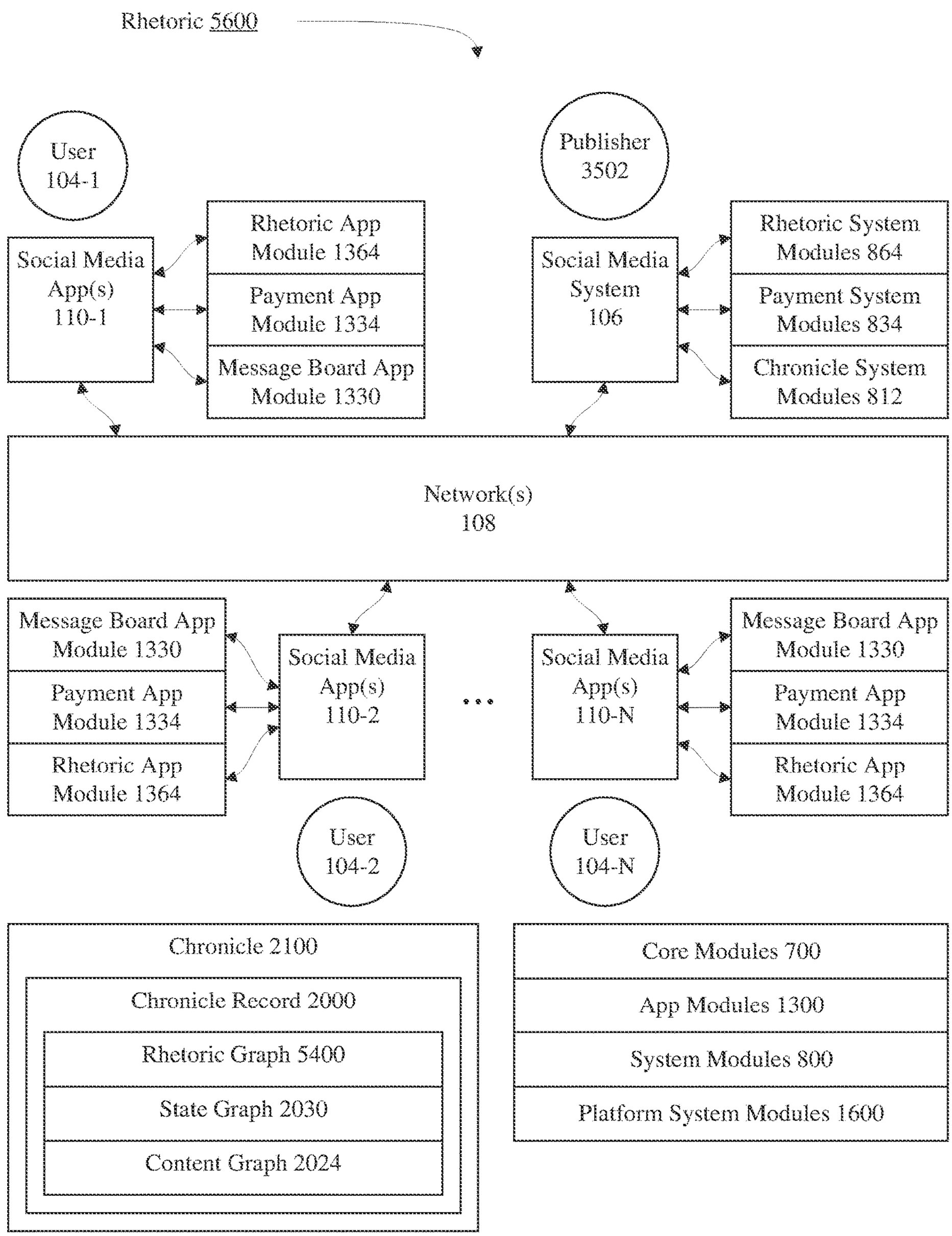

Rhetoric 5600
User 104-1
Social Media App(s) 110-1
Rhetoric App Module 1364
Payment App Module 1334
Message Board App Module 1330
Publisher 3502
Social Media System 106
Rhetoric System Modules 864
Payment System Modules 834
Chronicle System Modules 812
Network(s) 108
Message Board App Module 1330
Payment App Module 1334
Rhetoric App Module 1364
Social Media App(s) 110-2
User 104-2
...
Social Media App(s) 110-N
User 104-N
Message Board App Module 1330
Payment App Module 1334
Rhetoric App Module 1364
Chronicle 2100
Chronicle Record 2000
Rhetoric Graph 5400
State Graph 2030
Content Graph 2024
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 56

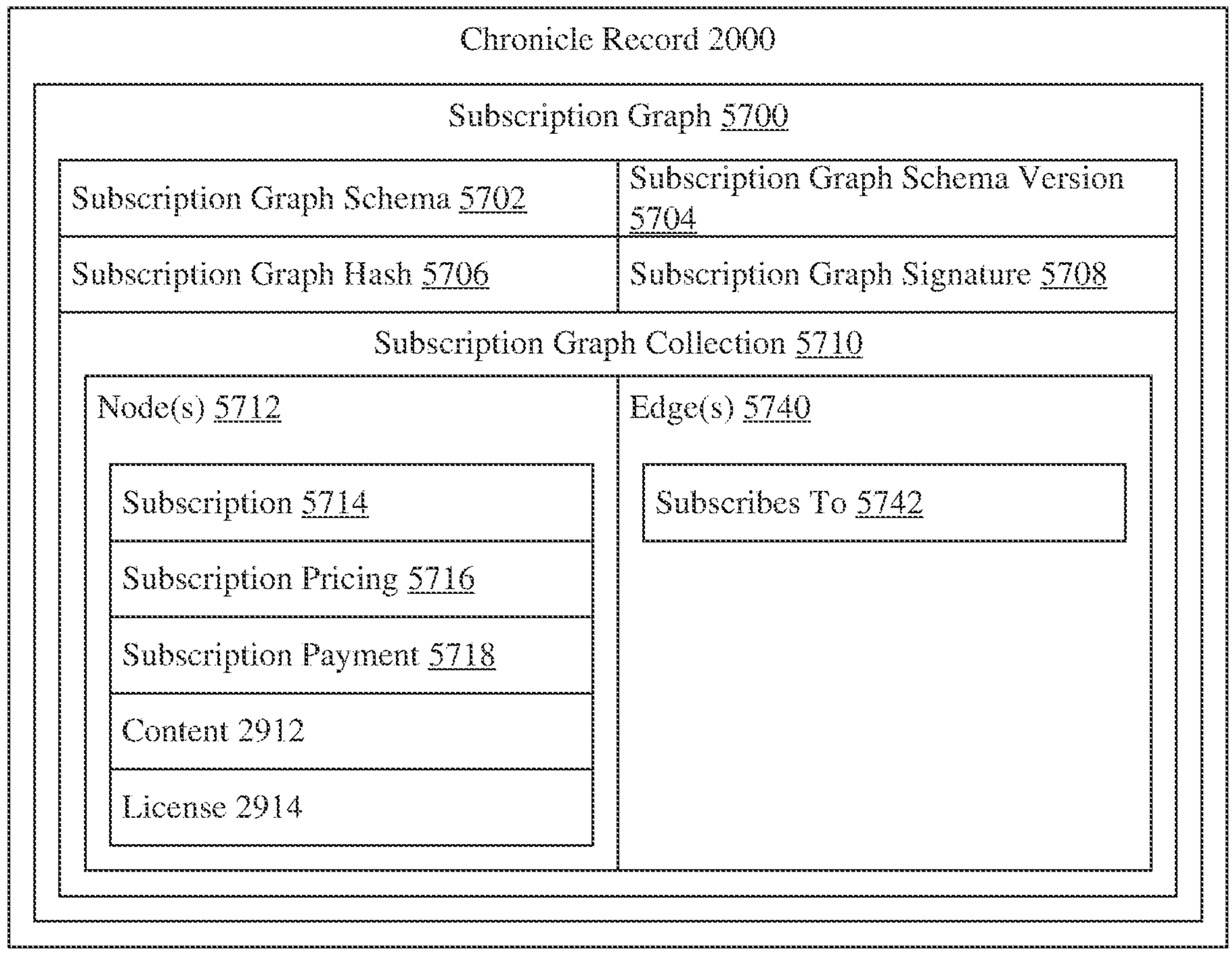

Chronicle Record 2000
Subscription Graph 5700
Subscription Graph Schema 5702
Subscription Graph Schema Version 5704
Subscription Graph Hash 5706
Subscription Graph Signature 5708
Subscription Graph Collection 5710
Node(s) 5712
Subscription 5714
Subscription Pricing 5716
Subscription Payment 5718
Content 2912
License 2914
Edge(s) 5740
Subscribes To 5742

FIGURE 57

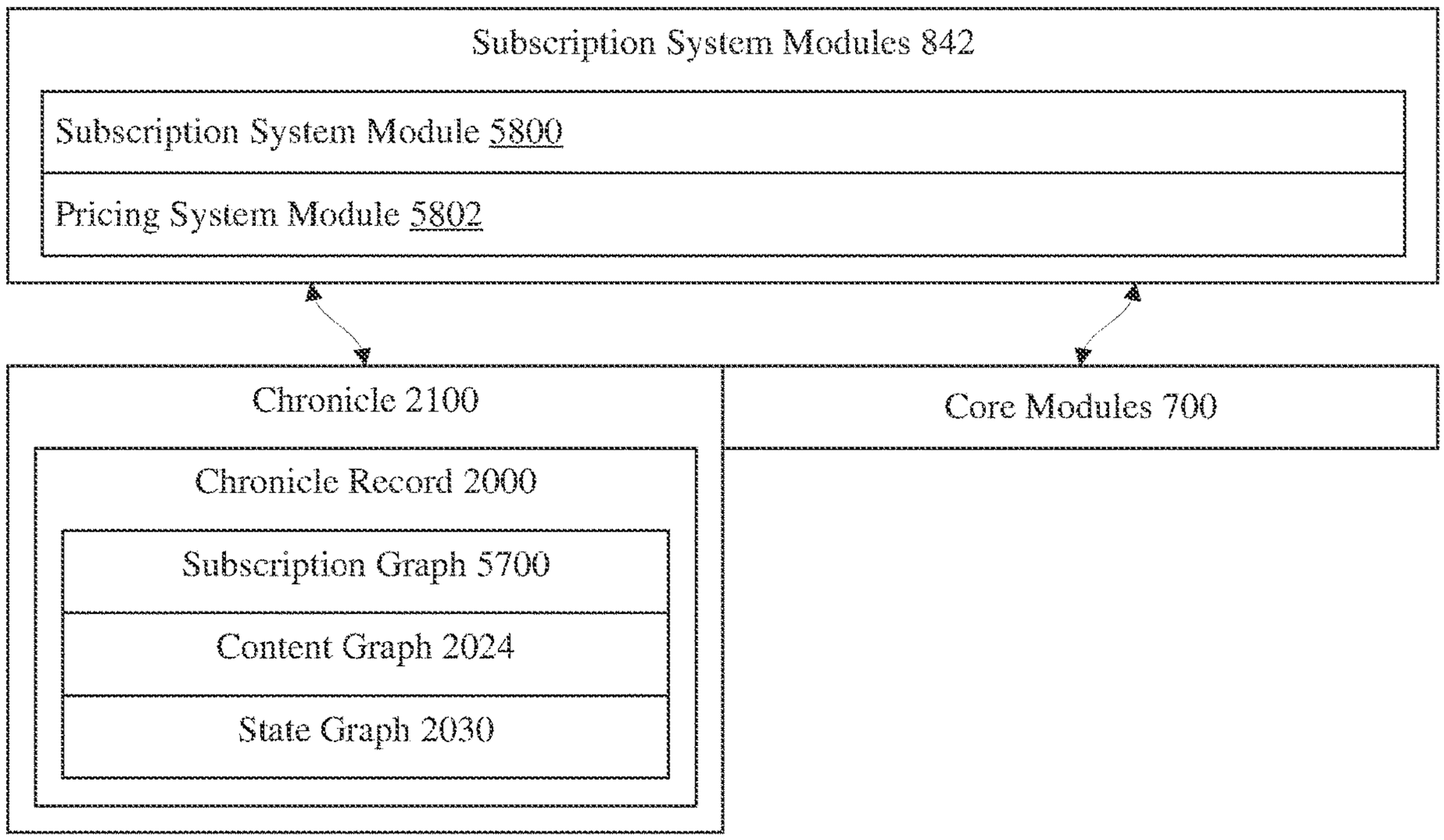

Subscription System Modules 842
Subscription System Module 5800
Pricing System Module 5802
Chronicle 2100
Core Modules 700
Chronicle Record 2000
Subscription Graph 5700
Content Graph 2024
State Graph 2030

FIGURE 58

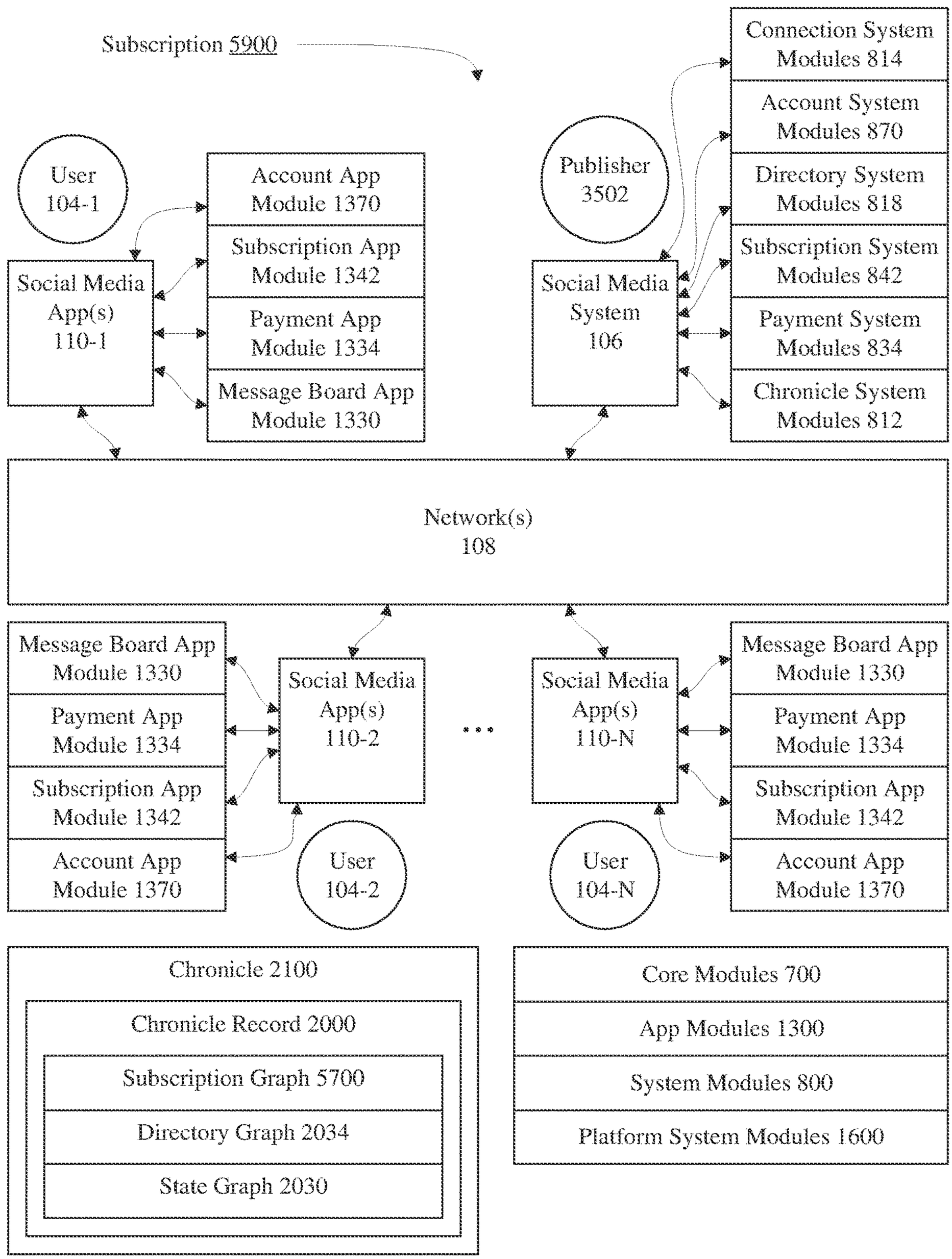

Subscription 5900
User 104-1
Social Media App(s) 110-1
Account App Module 1370
Subscription App Module 1342
Payment App Module 1334
Message Board App Module 1330
Publisher 3502
Social Media System 106
Connection System Modules 814
Account System Modules 870
Directory System Modules 818
Subscription System Modules 842
Payment System Modules 834
Chronicle System Modules 812
Network(s) 108
Message Board App Module 1330
Payment App Module 1334
Subscription App Module 1342
Account App Module 1370
Social Media App(s) 110-2
User 104-2
...
Social Media App(s) 110-N
User 104-N
Message Board App Module 1330
Payment App Module 1334
Subscription App Module 1342
Account App Module 1370
Chronicle 2100
Chronicle Record 2000
Subscription Graph 5700
Directory Graph 2034
State Graph 2030
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 59

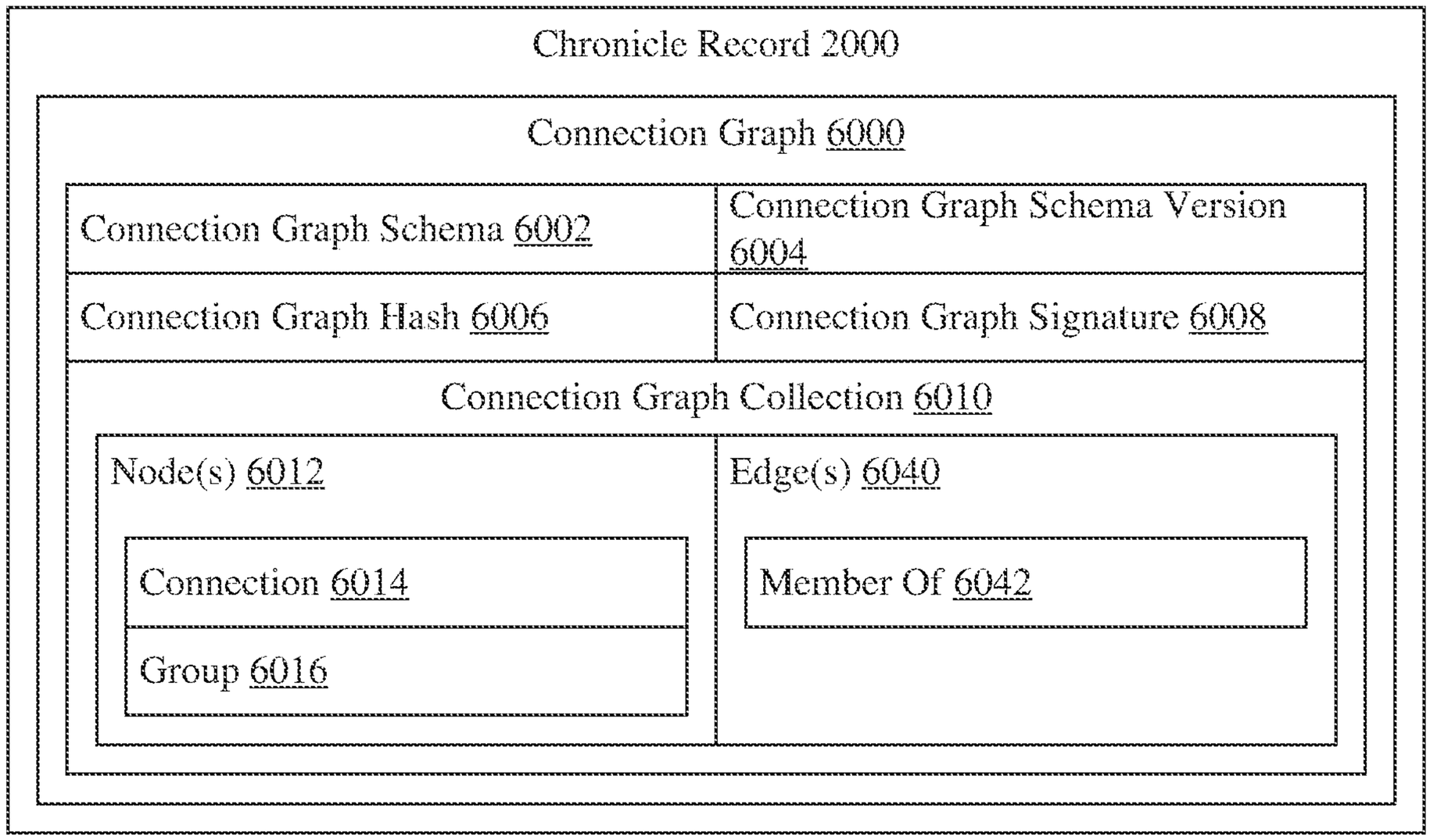

Chronicle Record 2000
Connection Graph 6000
Connection Graph Schema 6002
Connection Graph Schema Version 6004
Connection Graph Hash 6006
Connection Graph Signature 6008
Connection Graph Collection 6010
Node(s) 6012
Connection 6014
Group 6016
Edge(s) 6040
Member Of 6042

FIGURE 60

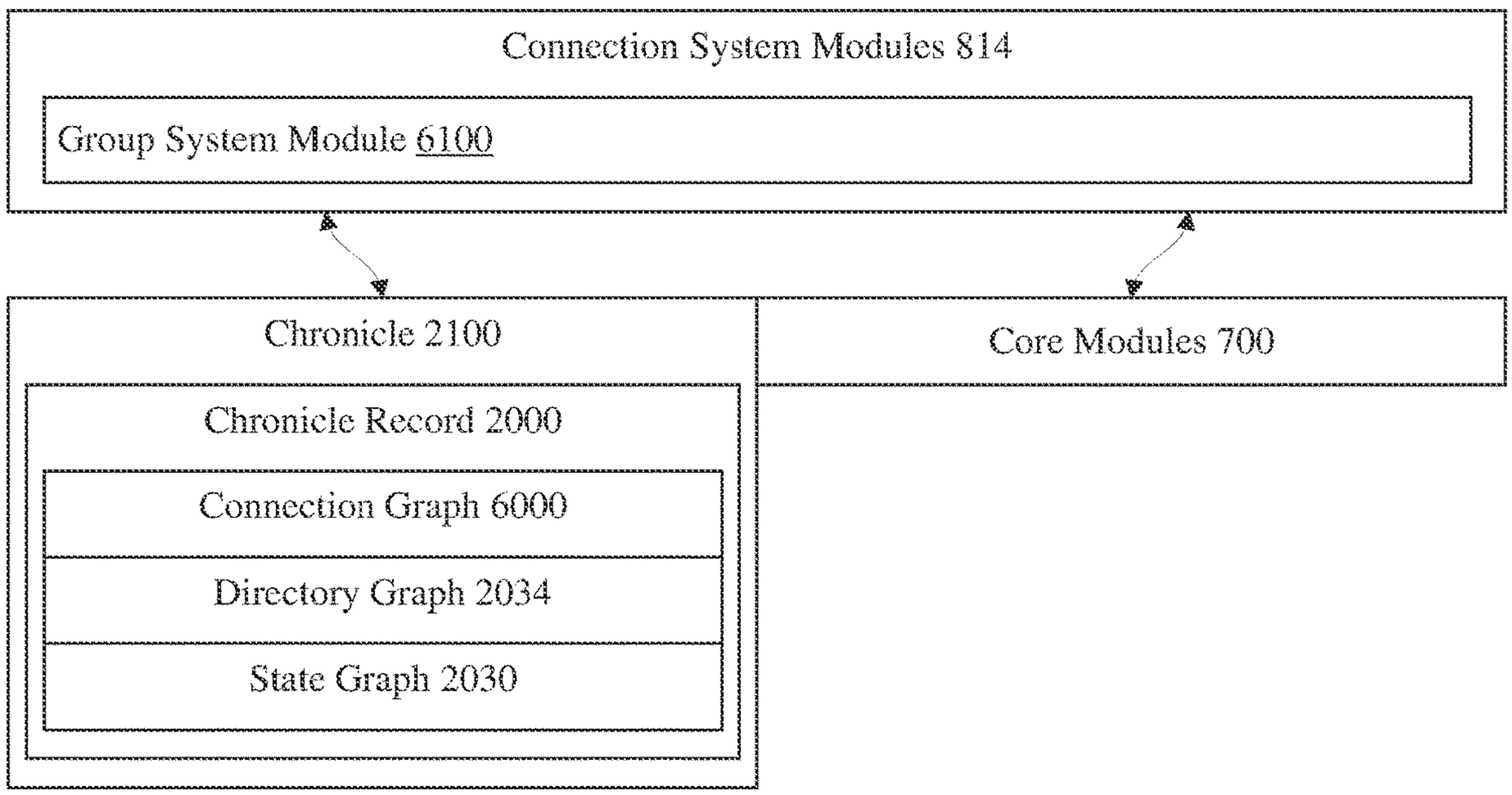

Connection System Modules 814
Group System Module 6100
Chronicle 2100
Core Modules 700
Chronicle Record 2000
Connection Graph 6000
Directory Graph 2034
State Graph 2030

FIGURE 61

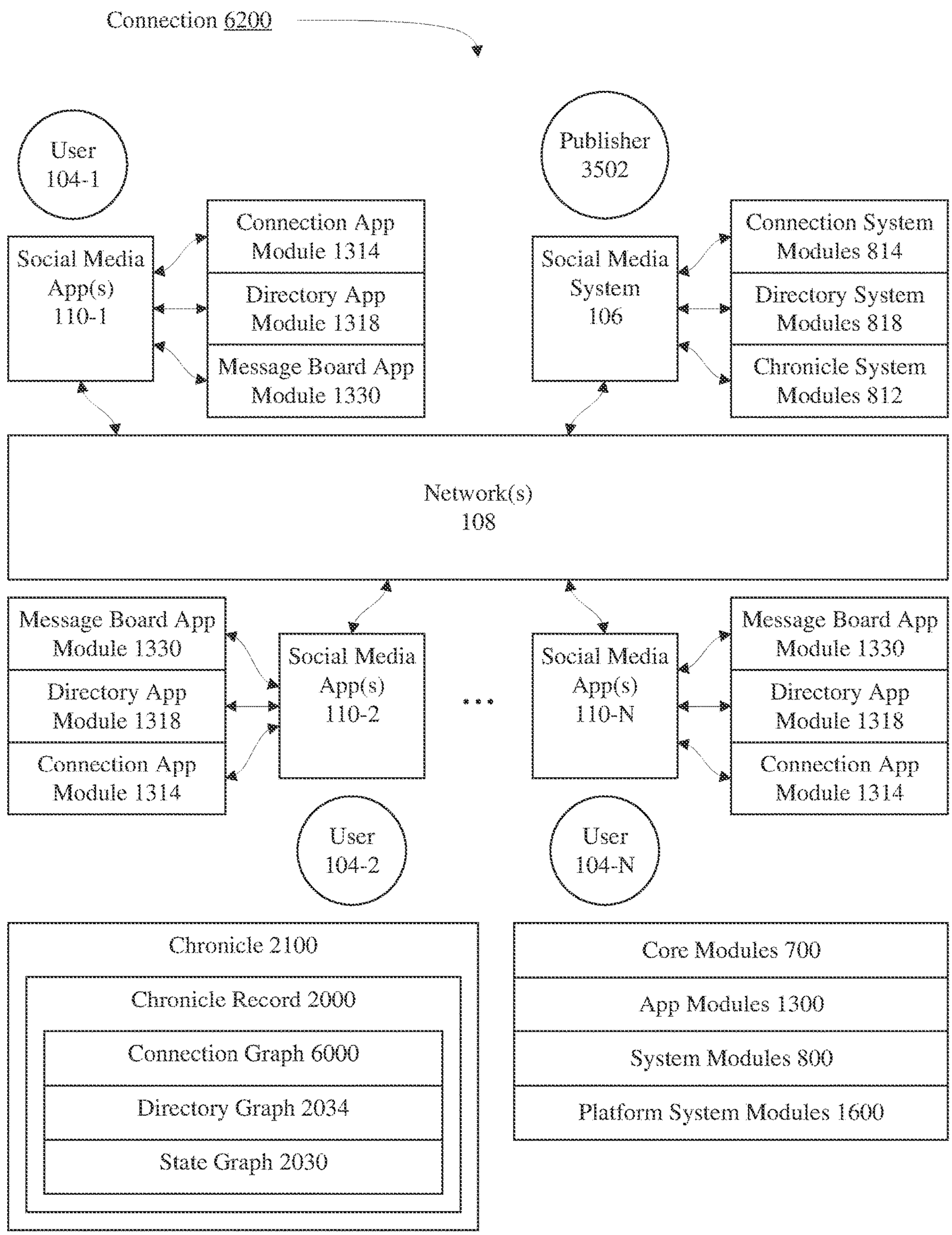
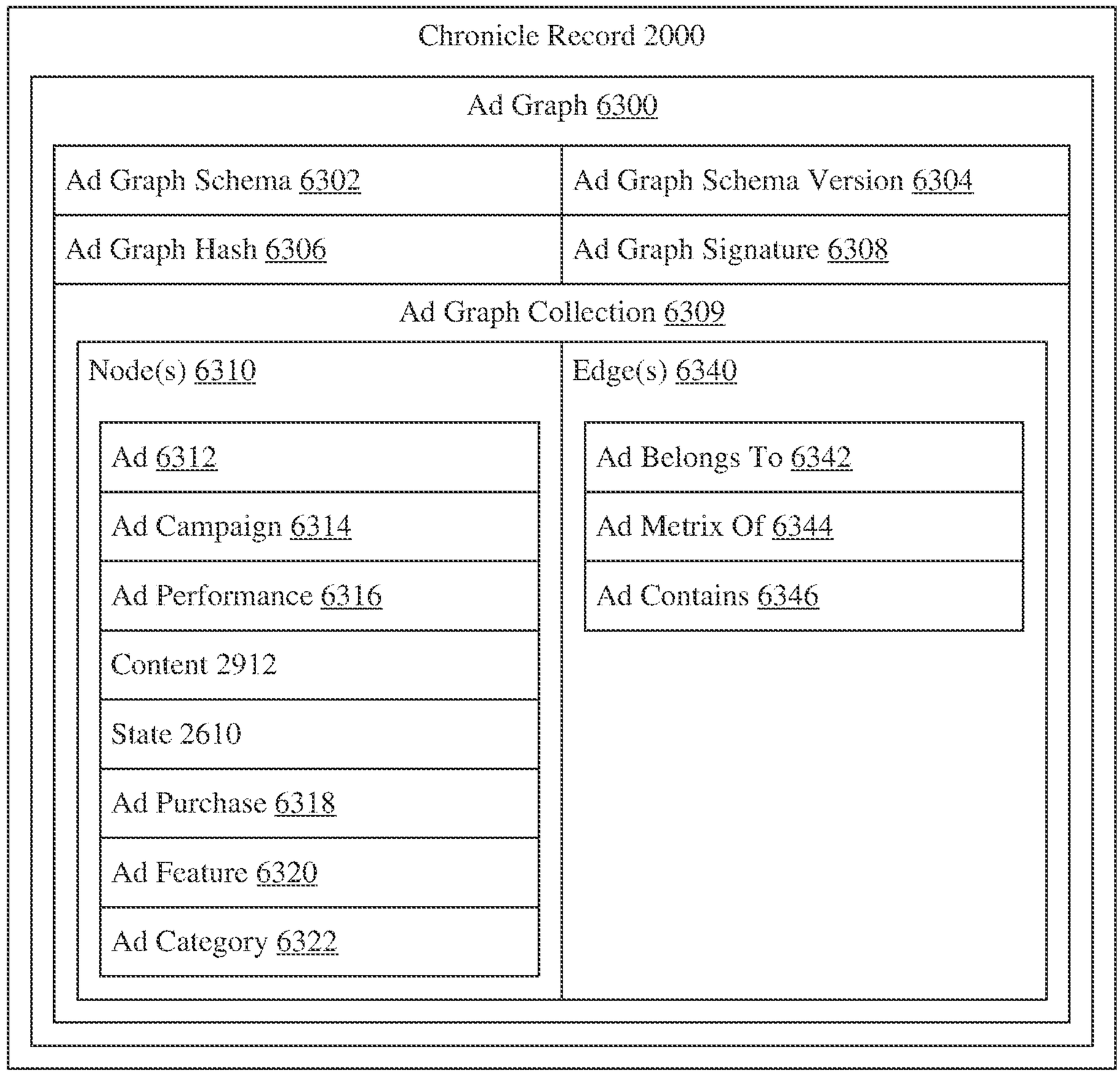

Connection 6200
User 104-1
Social Media App(s) 110-1
Connection App Module 1314
Directory App Module 1318
Message Board App Module 1330
Publisher 3502
Social Media System 106
Connection System Modules 814
Directory System Modules 818
Chronicle System Modules 812
Network(s) 108
Message Board App Module 1330
Directory App Module 1318
Connection App Module 1314
Social Media App(s) 110-2
User 104-2
...
Social Media App(s) 110-N
User 104-N
Message Board App Module 1330
Directory App Module 1318
Connection App Module 1314
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Directory Graph 2034
State Graph 2030
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 62


Chronicle Record 2000
Ad Graph 6300
Ad Graph Schema 6302
Ad Graph Schema Version 6304
Ad Graph Hash 6306
Ad Graph Signature 6308
Ad Graph Collection 6309
Node(s) 6310
Ad 6312
Ad Campaign 6314
Ad Performance 6316
Content 2912
State 2610
Ad Purchase 6318
Ad Feature 6320
Ad Category 6322
Edge(s) 6340
Ad Belongs To 6342
Ad Metrix Of 6344
Ad Contains 6346

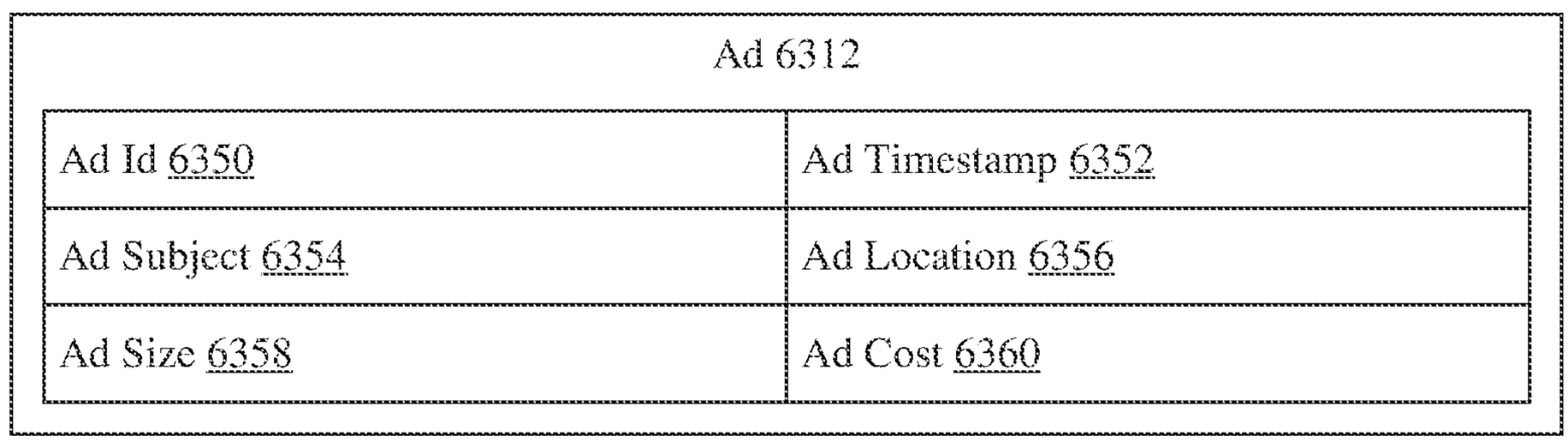

Ad 6312
Ad Id 6350
Ad Timestamp 6352
Ad Subject 6354
Ad Location 6356
Ad Size 6358
Ad Cost 6360

FIGURE 63

Ad Campaign 6314	
Ad Campaign Id 6470	Ad Campaign Timestamp 6472
Ad Campaign Duration 6474	Ad Campaign Reach 6476
Ad Campaign Frequency 6478	Ad Campaign Targets 6480
Ad Campaign Rotation 6482	Ad Campaign Cost 6484

Ad Performance 6316	
Ad Performance Id 6485	Ad Performance Timestamp 6486
Ad Performance Impressions 6488	Ad Performance Cost Per Impression 6490
Ad Performance Click Thru Rate 6492	Ad Performance Cost Per Click 6494
Ad Performance Actions 6496	Ad Performance Cost Per Action 6498
Ad Performance Return on Spend 6499	

FIGURE 64

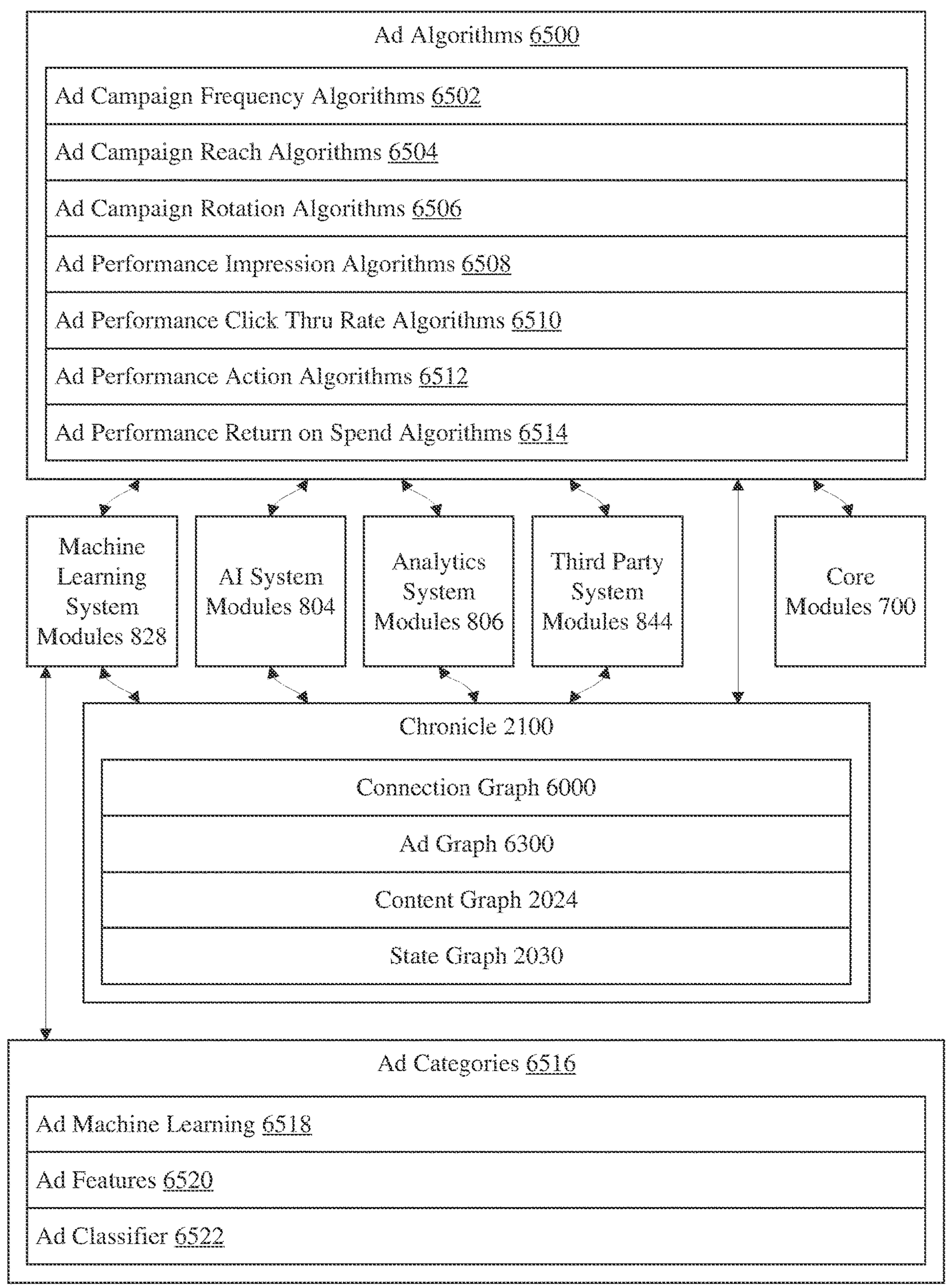

Ad Algorithms 6500
Ad Campaign Frequency Algorithms 6502
Ad Campaign Reach Algorithms 6504
Ad Campaign Rotation Algorithms 6506
Ad Performance Impression Algorithms 6508
Ad Performance Click Thru Rate Algorithms 6510
Ad Performance Action Algorithms 6512
Ad Performance Return on Spend Algorithms 6514
Machine Learning System Modules 828
AI System Modules 804
Analytics System Modules 806
Third Party System Modules 844
Core Modules 700
Chronicle 2100
Connection Graph 6000
Ad Graph 6300
Content Graph 2024
State Graph 2030
Ad Categories 6516
Ad Machine Learning 6518
Ad Features 6520
Ad Classifier 6522

FIGURE 65

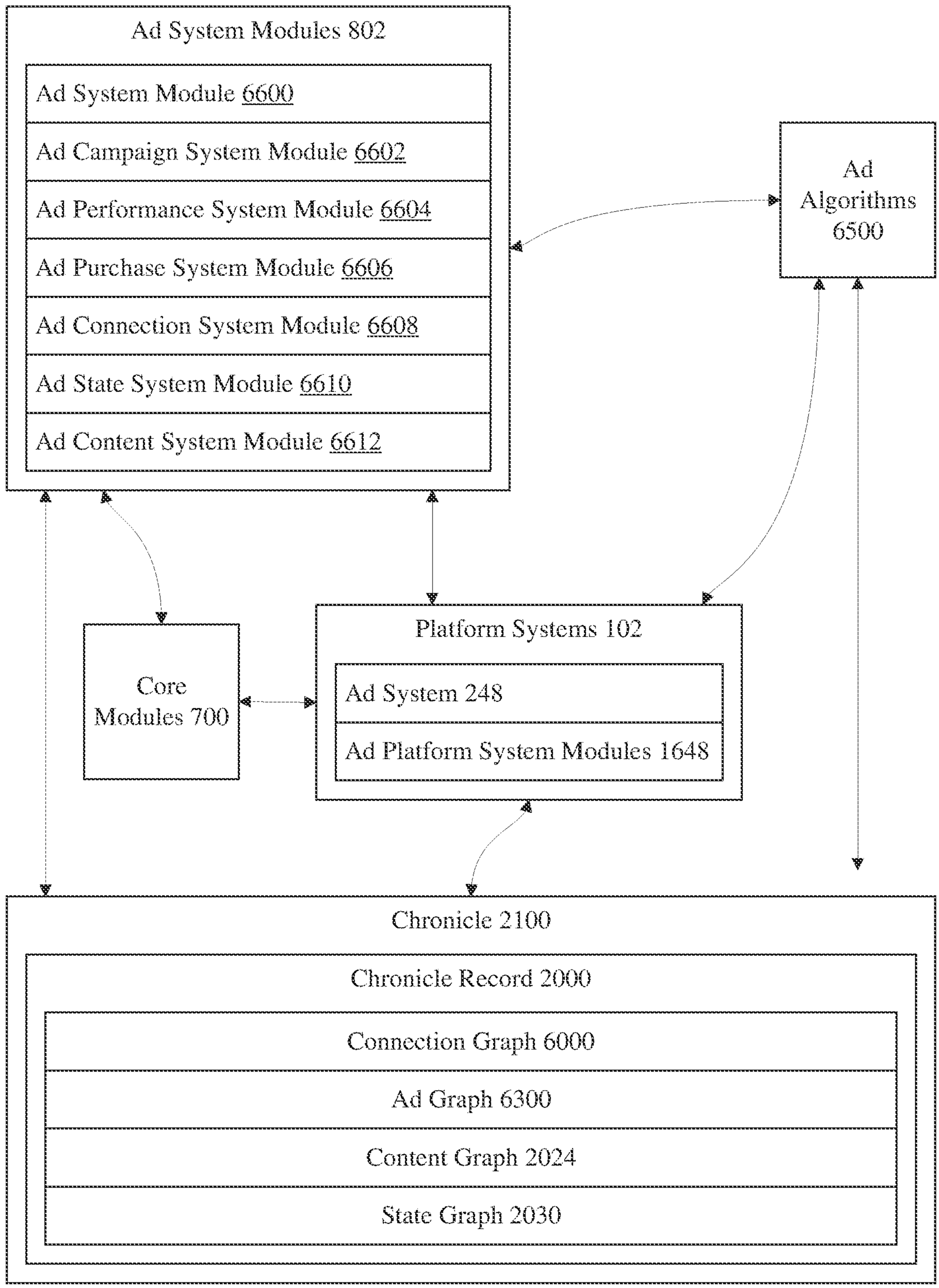

Ad System Modules 802
Ad System Module 6600
Ad Campaign System Module 6602
Ad Performance System Module 6604
Ad Purchase System Module 6606
Ad Connection System Module 6608
Ad State System Module 6610
Ad Content System Module 6612
Ad Algorithms 6500
Core Modules 700
Platform Systems 102
Ad System 248
Ad Platform System Modules 1648
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Ad Graph 6300
Content Graph 2024
State Graph 2030

FIGURE 66

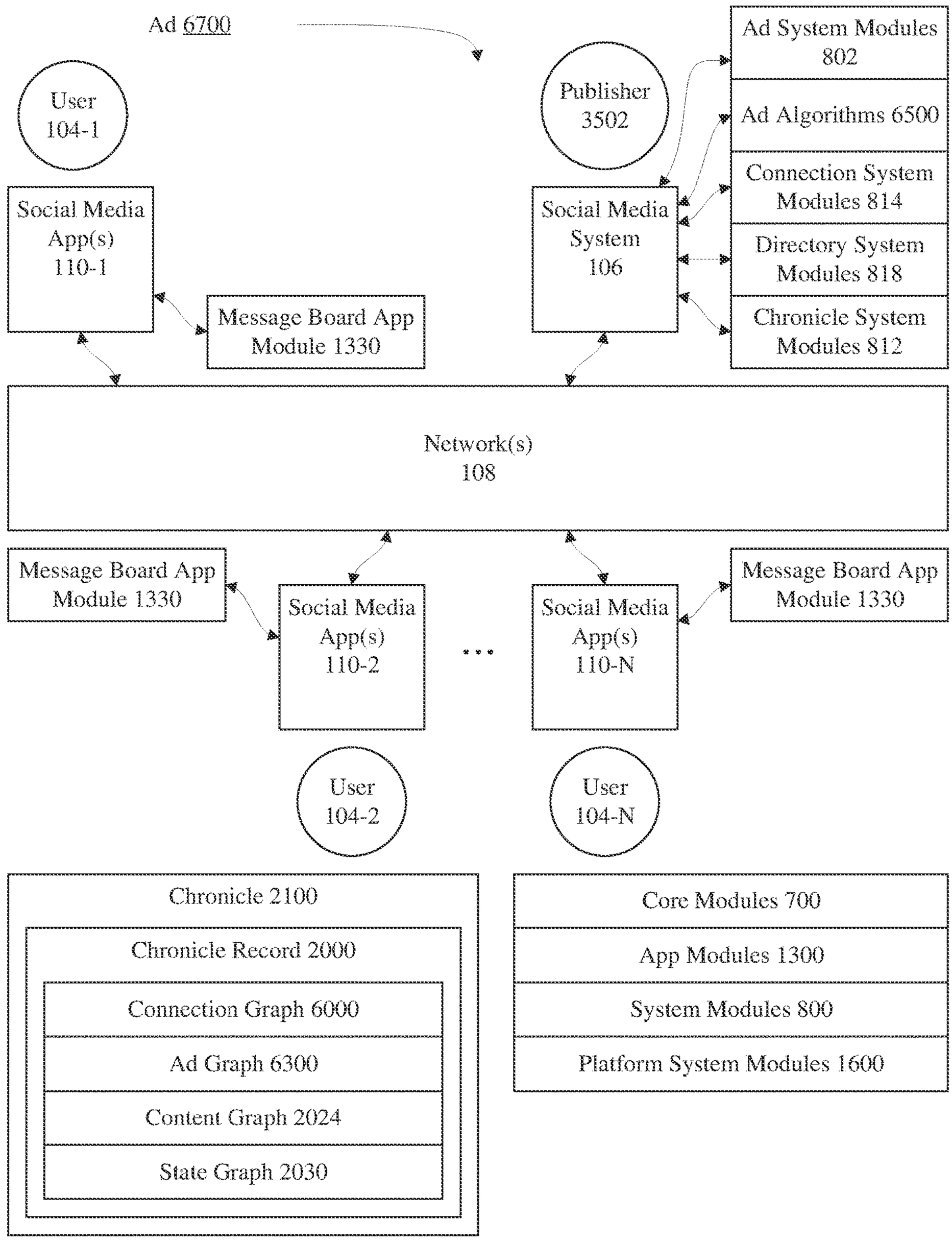

Ad 6700
User 104-1
Social Media App(s) 110-1
Message Board App Module 1330
Publisher 3502
Social Media System 106
Ad System Modules 802
Ad Algorithms 6500
Connection System Modules 814
Directory System Modules 818
Chronicle System Modules 812
Network(s) 108
Message Board App Module 1330
Social Media App(s) 110-2
...
Social Media App(s) 110-N
Message Board App Module 1330
User 104-2
User 104-N
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Ad Graph 6300
Content Graph 2024
State Graph 2030
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 67

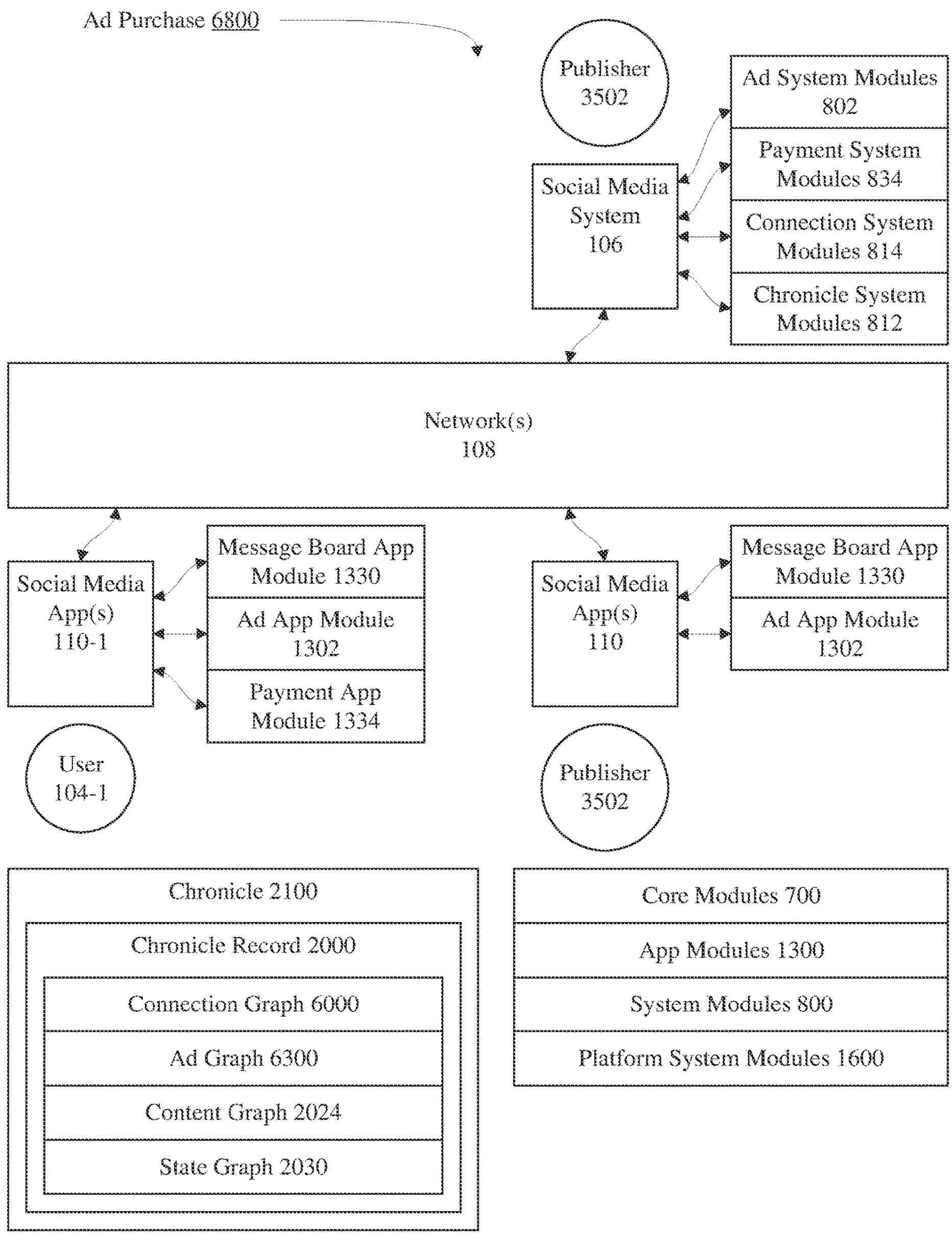

Ad Purchase 6800
Publisher 3502
Ad System Modules 802
Payment System Modules 834
Social Media System 106
Connection System Modules 814
Chronicle System Modules 812
Network(s) 108
Social Media App(s) 110-1
Message Board App Module 1330
Ad App Module 1302
Payment App Module 1334
User 104-1
Social Media App(s) 110
Message Board App Module 1330
Ad App Module 1302
Publisher 3502
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Ad Graph 6300
Content Graph 2024
State Graph 2030
Core Modules 700
App Modules 1300
System Modules 800
Platform System Modules 1600

FIGURE 68

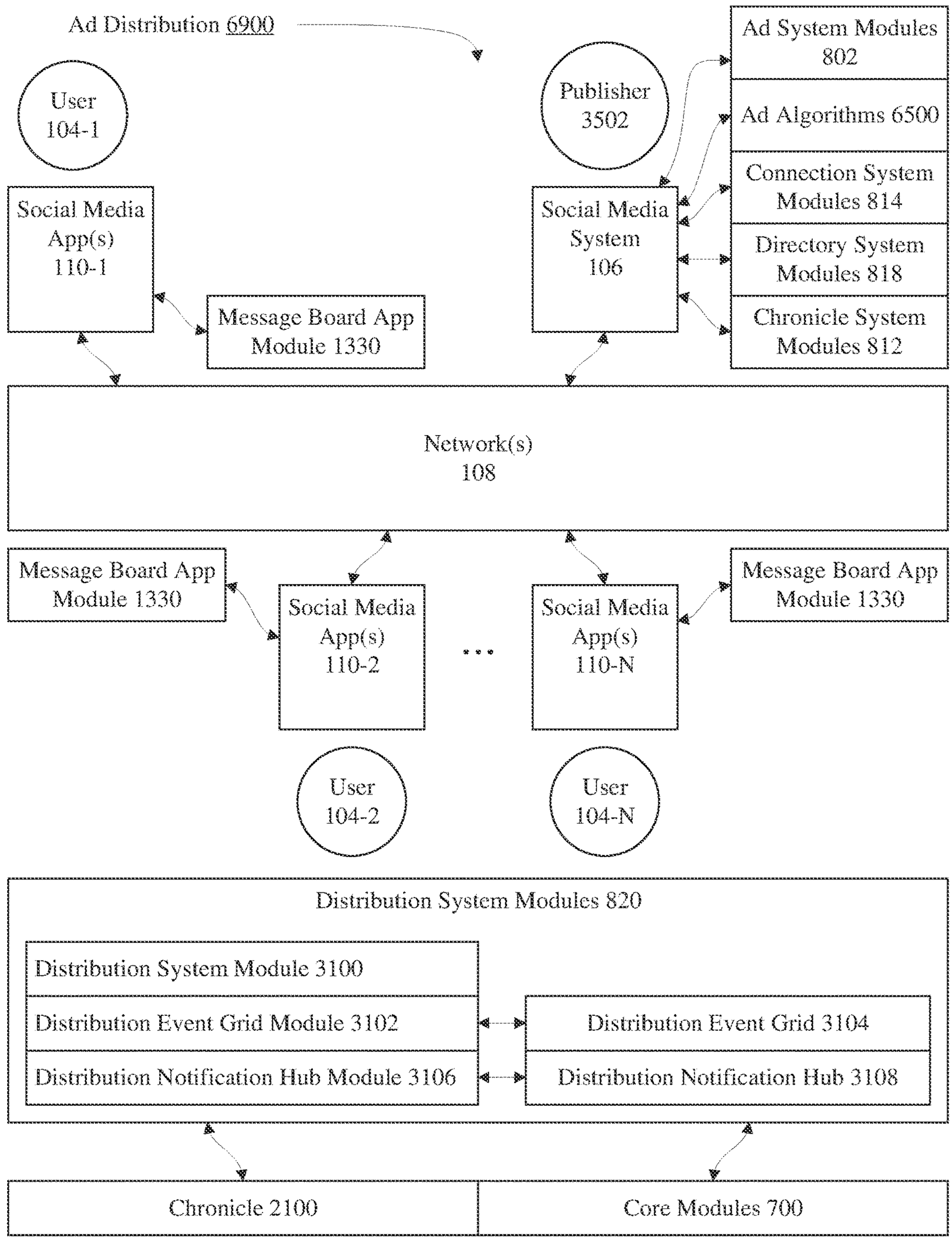

Ad Distribution 6900
User 104-1
Publisher 3502
Ad System Modules 802
Ad Algorithms 6500
Connection System Modules 814
Directory System Modules 818
Chronicle System Modules 812
Social Media App(s) 110-1
Social Media System 106
Message Board App Module 1330
Network(s) 108
Message Board App Module 1330
Social Media App(s) 110-2
...
Social Media App(s) 110-N
Message Board App Module 1330
User 104-2
User 104-N
Distribution System Modules 820
Distribution System Module 3100
Distribution Event Grid Module 3102
Distribution Event Grid 3104
Distribution Notification Hub Module 3106
Distribution Notification Hub 3108
Chronicle 2100
Core Modules 700

FIGURE 69

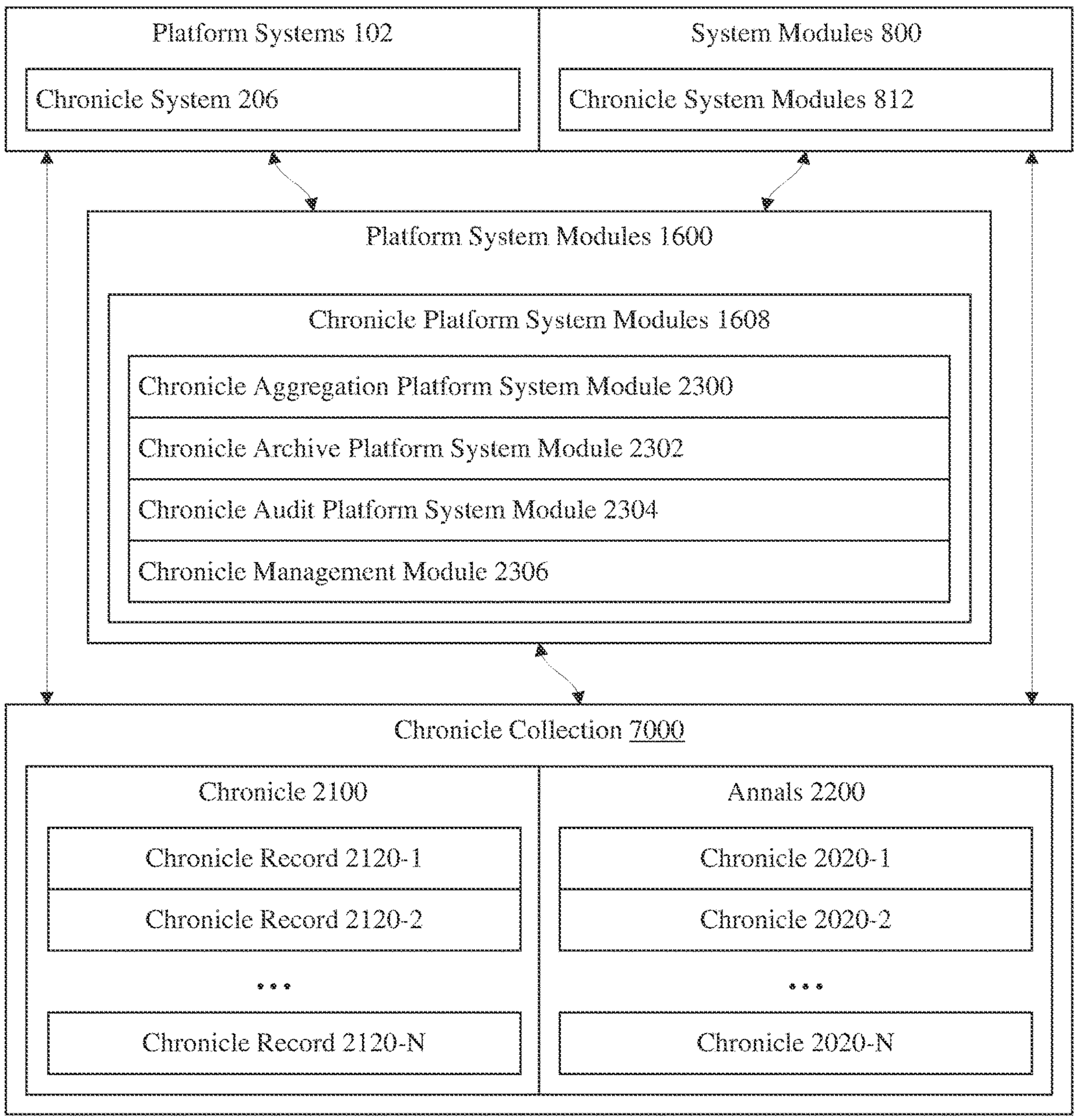
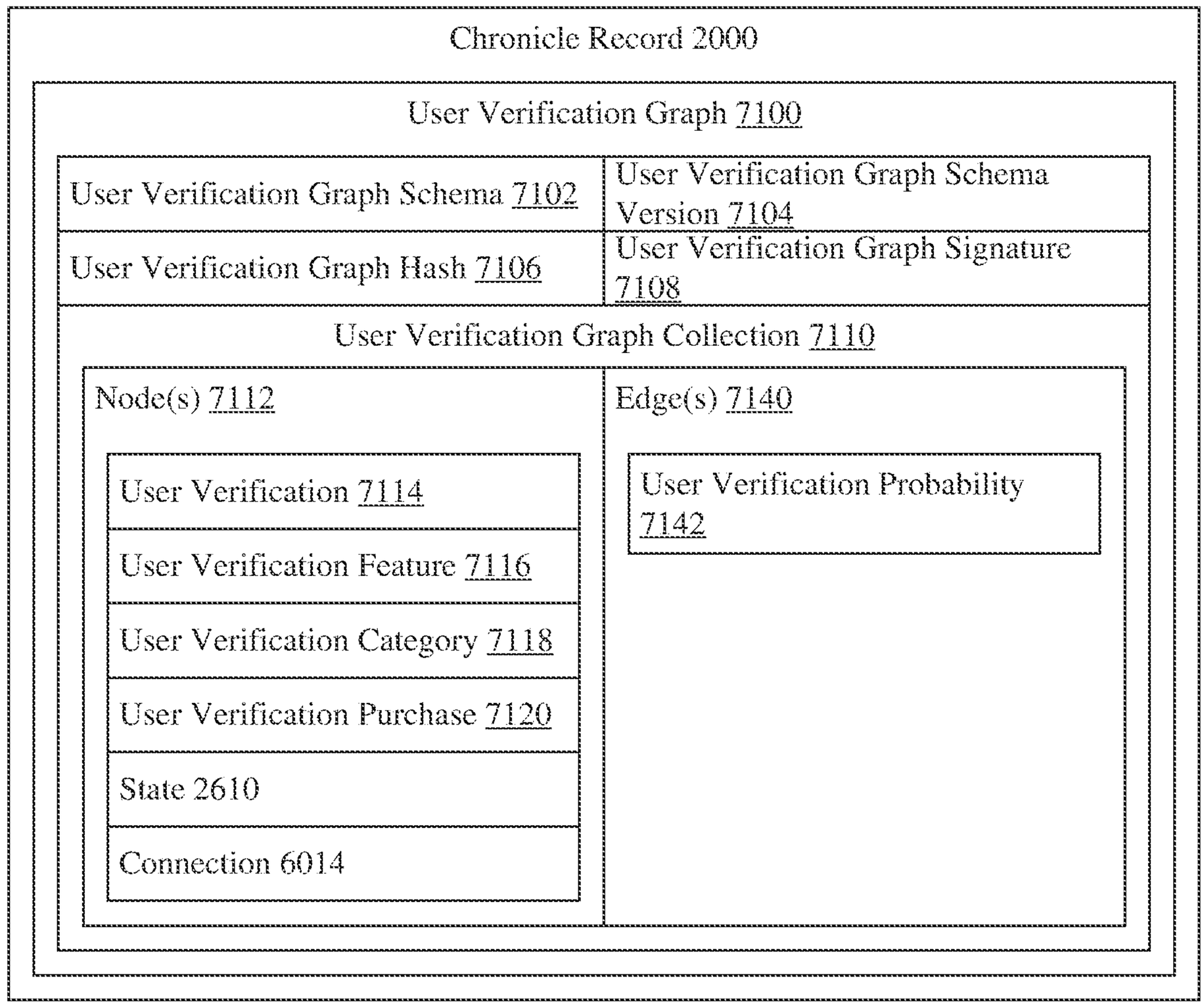

Platform Systems 102
Chronicle System 206
System Modules 800
Chronicle System Modules 812
Platform System Modules 1600
Chronicle Platform System Modules 1608
Chronicle Aggregation Platform System Module 2300
Chronicle Archive Platform System Module 2302
Chronicle Audit Platform System Module 2304
Chronicle Management Module 2306
Chronicle Collection 7000
Chronicle 2100
Chronicle Record 2120-1
Chronicle Record 2120-2
...
Chronicle Record 2120-N
Annals 2200
Chronicle 2020-1
Chronicle 2020-2
...
Chronicle 2020-N

FIGURE 70


Chronicle Record 2000
User Verification Graph 7100
User Verification Graph Schema 7102
User Verification Graph Schema Version 7104
User Verification Graph Hash 7106
User Verification Graph Signature 7108
User Verification Graph Collection 7110
Node(s) 7112
User Verification 7114
User Verification Feature 7116
User Verification Category 7118
User Verification Purchase 7120
State 2610
Connection 6014
Edge(s) 7140
User Verification Probability 7142

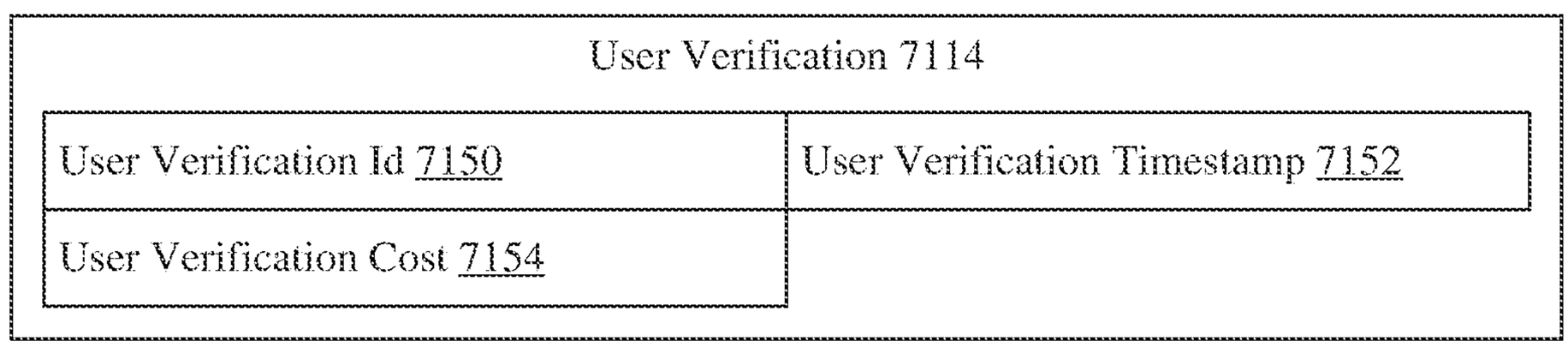

User Verification 7114
User Verification Id 7150
User Verification Timestamp 7152
User Verification Cost 7154

FIGURE 71

Chronicle Record 2000

User Verification Features 7200

Password Confirmation by Email 7202	2FA Enabled 7204
Email Source 7206	Device Type 7208
Device Count 7210	Mobile Network 7212
Verification Location Match 7214	Verification Purchase 7216
Verification Payment Method 7218	ACH Authorization Verification 7220
In-Person Verification 7222	In-Person Verification Id Type 7224
In-Person Verification Id Check 7226	In-Person Verification Photo Taken 7228
SSN Verification 7230	EIN Verification 7232
Credit Soft Inquiry 7234	Background Check 7236

FIGURE 72

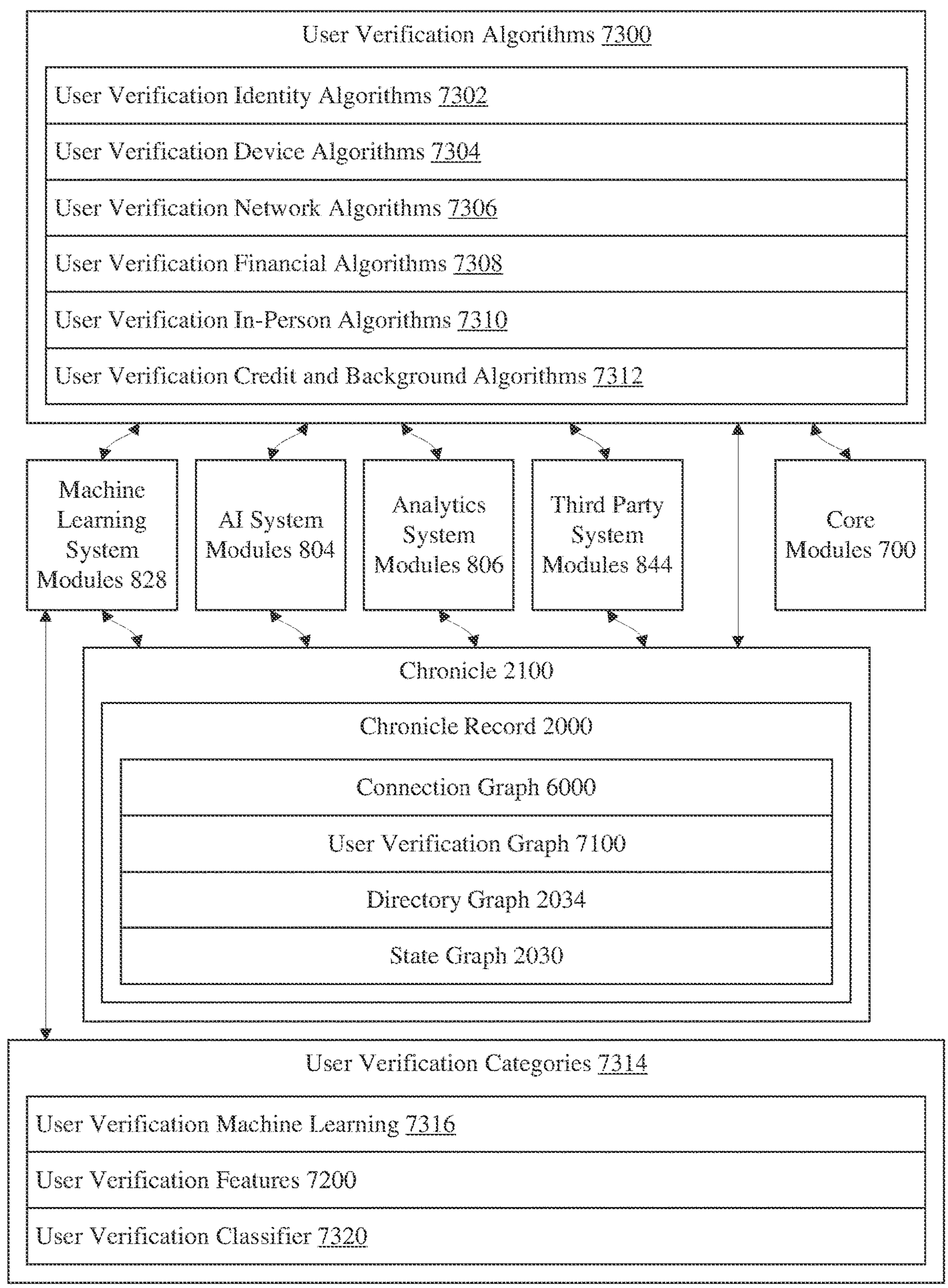

User Verification Algorithms 7300
User Verification Identity Algorithms 7302
User Verification Device Algorithms 7304
User Verification Network Algorithms 7306
User Verification Financial Algorithms 7308
User Verification In-Person Algorithms 7310
User Verification Credit and Background Algorithms 7312
Machine Learning System Modules 828
AI System Modules 804
Analytics System Modules 806
Third Party System Modules 844
Core Modules 700
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
User Verification Graph 7100
Directory Graph 2034
State Graph 2030
User Verification Categories 7314
User Verification Machine Learning 7316
User Verification Features 7200
User Verification Classifier 7320

FIGURE 73

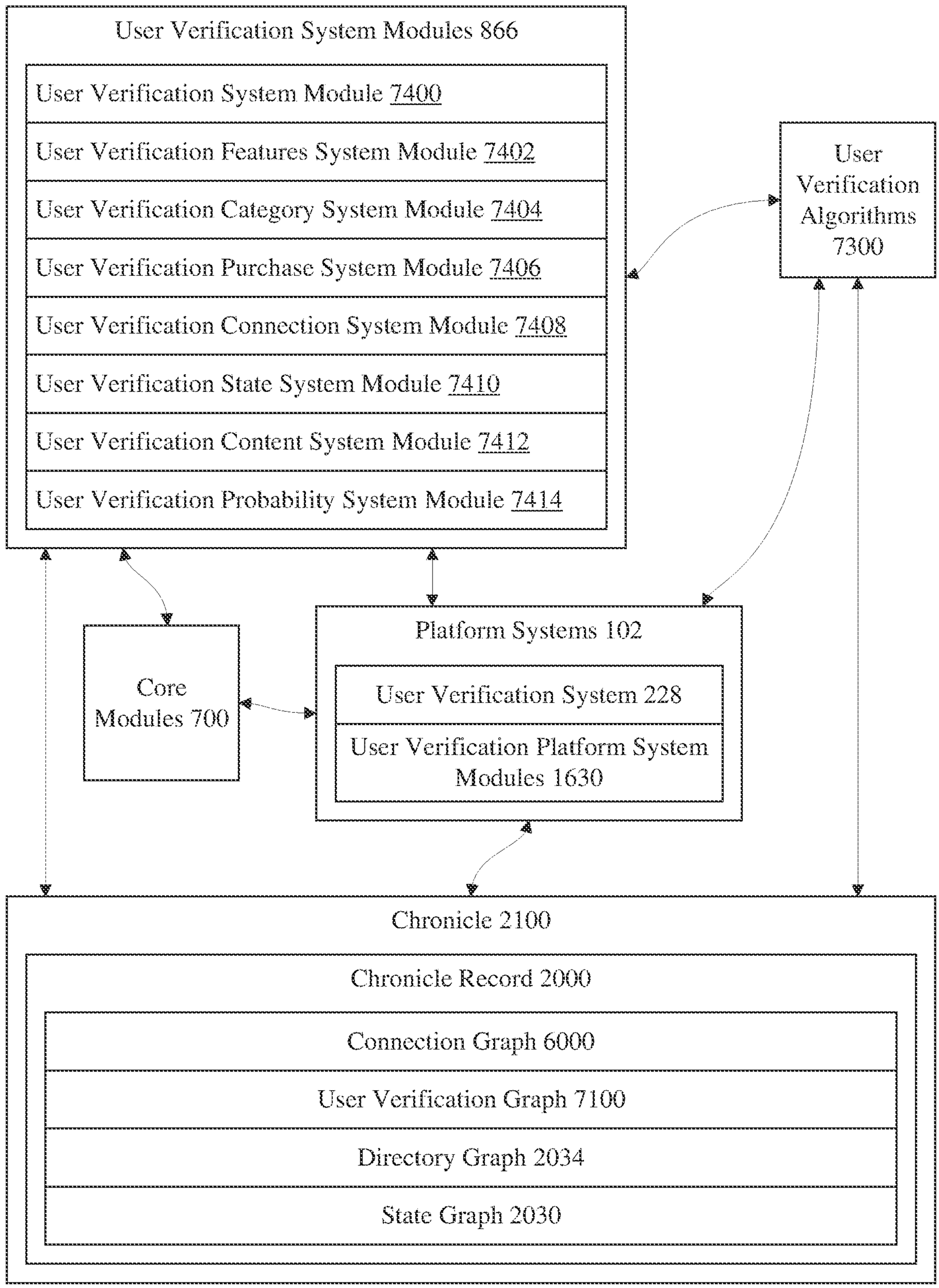

User Verification System Modules 866
User Verification System Module 7400
User Verification Features System Module 7402
User Verification Category System Module 7404
User Verification Purchase System Module 7406
User Verification Connection System Module 7408
User Verification State System Module 7410
User Verification Content System Module 7412
User Verification Probability System Module 7414
User Verification Algorithms 7300
Core Modules 700
Platform Systems 102
User Verification System 228
User Verification Platform System Modules 1630
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
User Verification Graph 7100
Directory Graph 2034
State Graph 2030

FIGURE 74

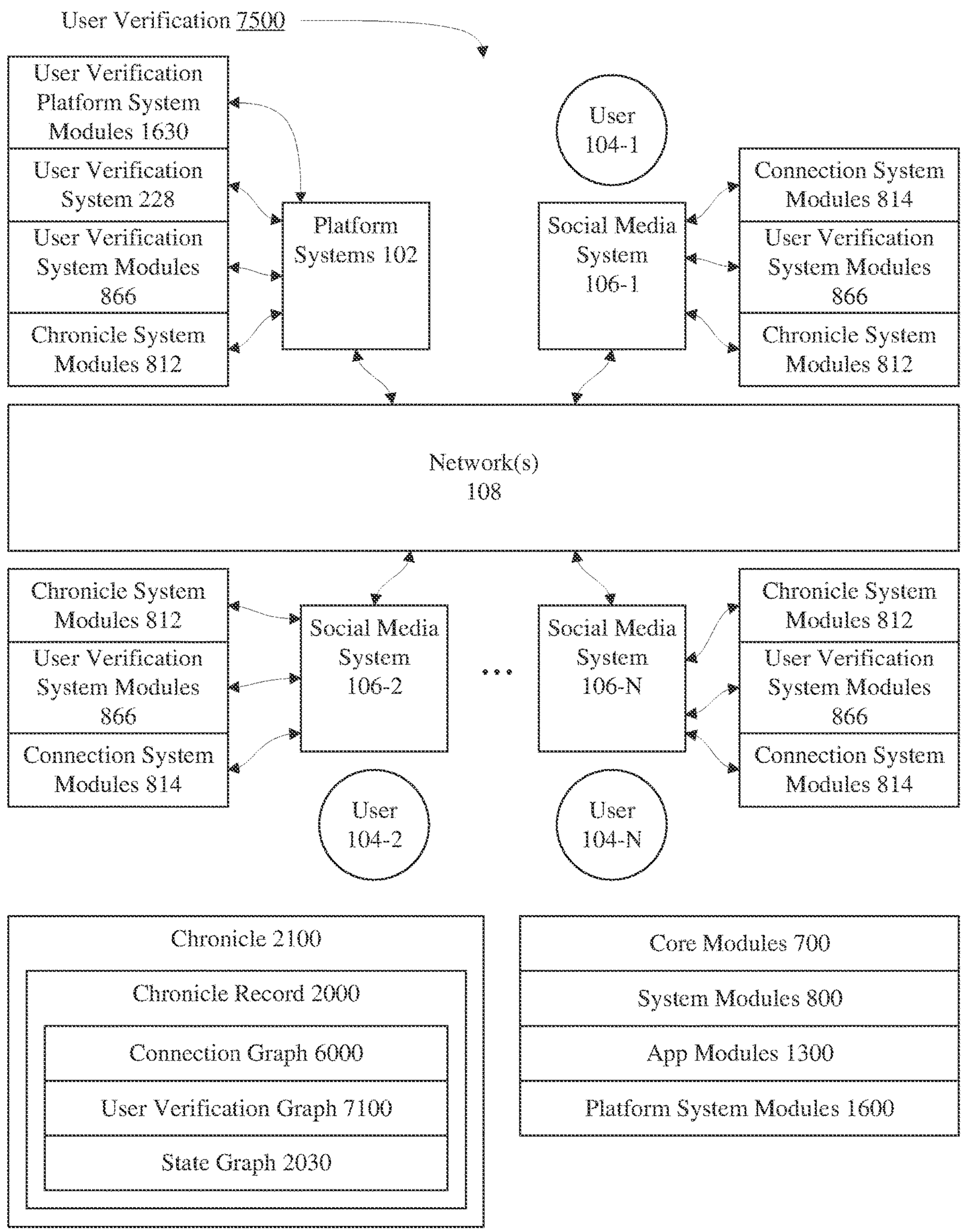

User Verification 7500
User Verification Platform System Modules 1630
User Verification System 228
User Verification System Modules 866
Chronicle System Modules 812
Platform Systems 102
User 104-1
Social Media System 106-1
Connection System Modules 814
User Verification System Modules 866
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
User Verification System Modules 866
Connection System Modules 814
Social Media System 106-2
User 104-2
...
Social Media System 106-N
User 104-N
Chronicle System Modules 812
User Verification System Modules 866
Connection System Modules 814
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
User Verification Graph 7100
State Graph 2030
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600

FIGURE 75

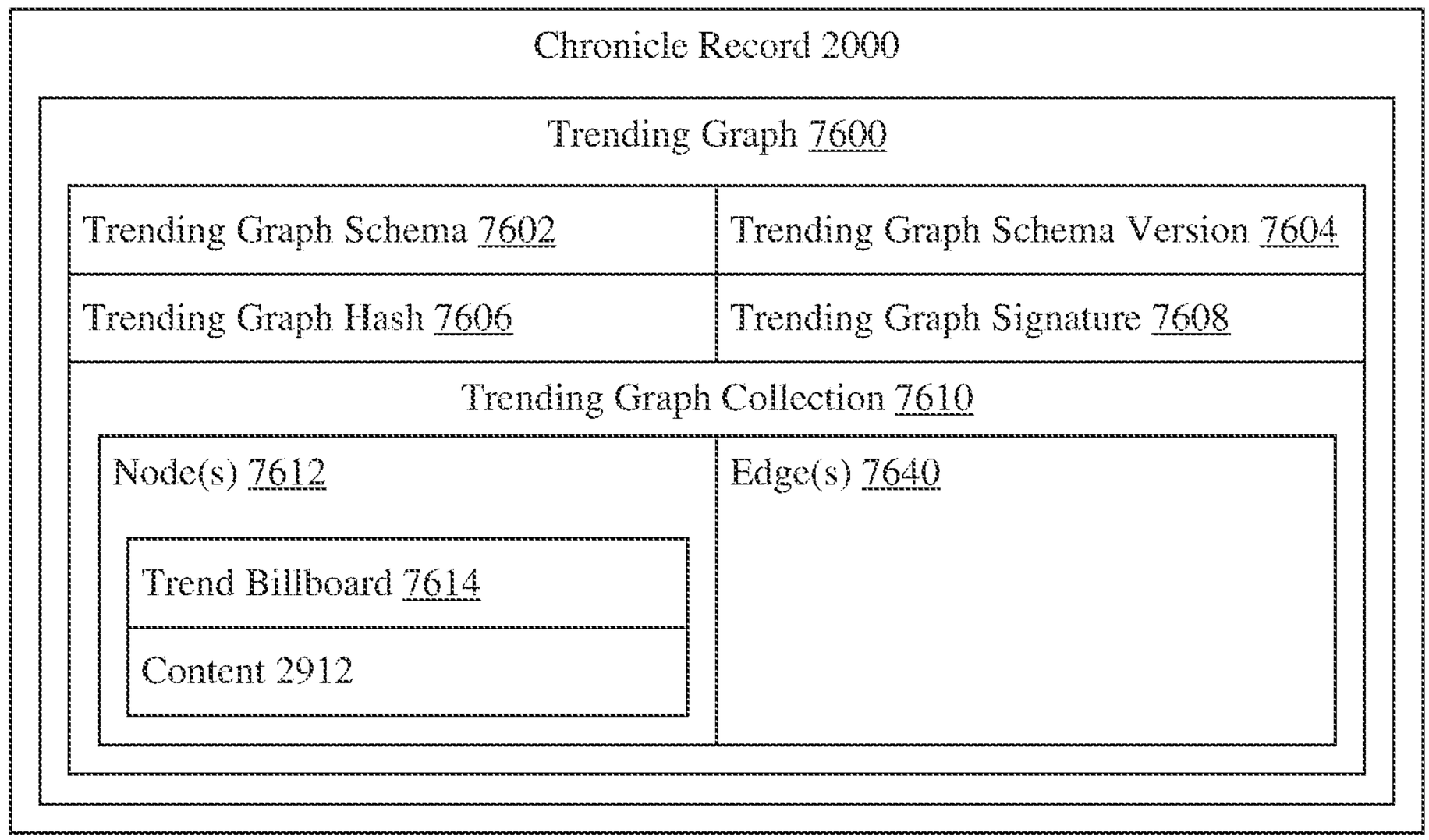

Chronicle Record 2000
Trending Graph 7600
Trending Graph Schema 7602
Trending Graph Schema Version 7604
Trending Graph Hash 7606
Trending Graph Signature 7608
Trending Graph Collection 7610
Node(s) 7612
Edge(s) 7640
Trend Billboard 7614
Content 2912

FIGURE 76

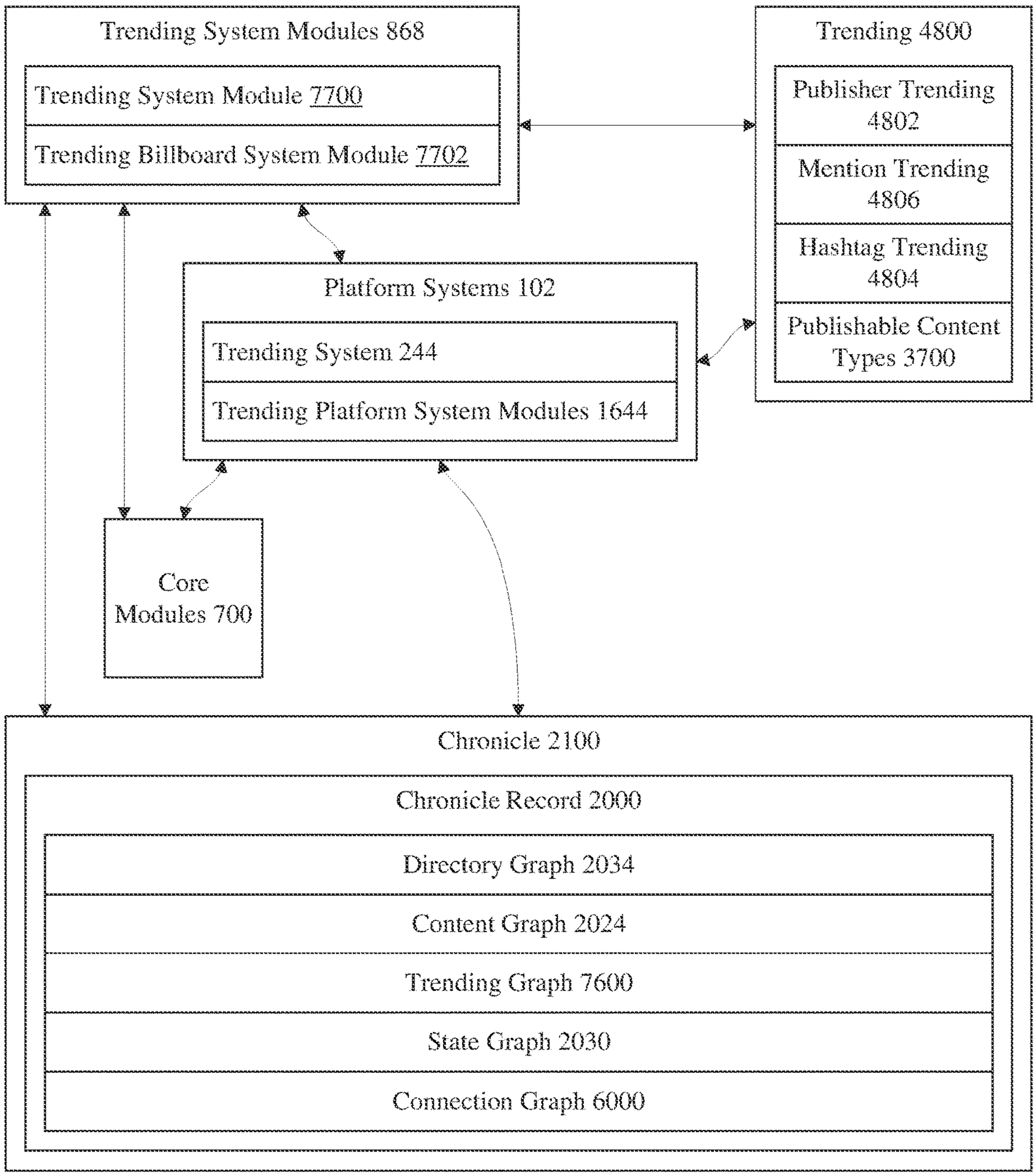

Trending System Modules 868
Trending System Module 7700
Trending Billboard System Module 7702
Trending 4800
Publisher Trending 4802
Mention Trending 4806
Hashtag Trending 4804
Publishable Content Types 3700
Platform Systems 102
Trending System 244
Trending Platform System Modules 1644
Core Modules 700
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Trending Graph 7600
State Graph 2030
Connection Graph 6000

FIGURE 77

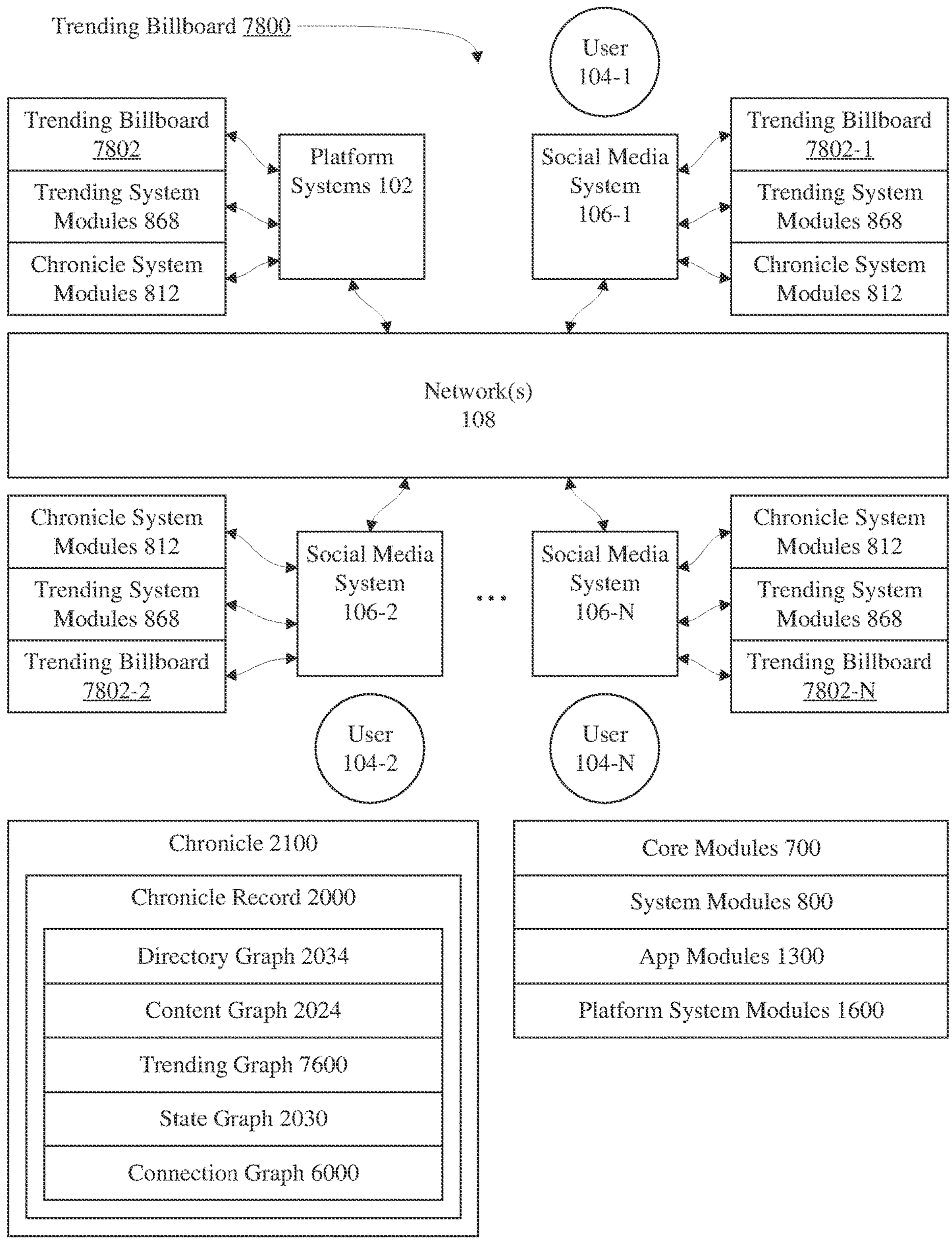

Trending Billboard 7800
User 104-1
Trending Billboard 7802
Trending System Modules 868
Chronicle System Modules 812
Platform Systems 102
Social Media System 106-1
Trending Billboard 7802-1
Trending System Modules 868
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Trending System Modules 868
Trending Billboard 7802-2
Social Media System 106-2
...
Social Media System 106-N
Chronicle System Modules 812
Trending System Modules 868
Trending Billboard 7802-N
User 104-2
User 104-N
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Trending Graph 7600
State Graph 2030
Connection Graph 6000
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600

FIGURE 78

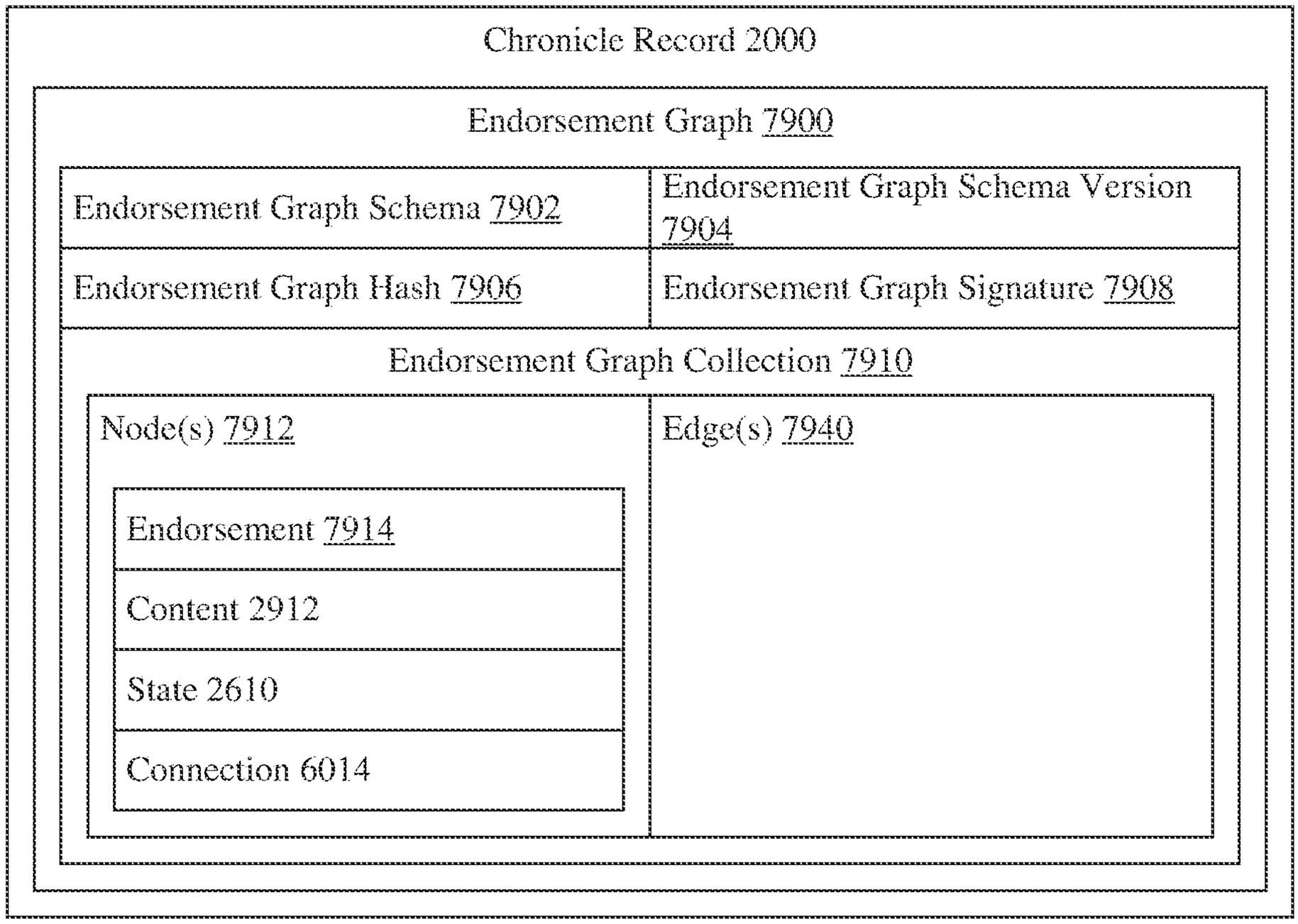

Chronicle Record 2000
Endorsement Graph 7900
Endorsement Graph Schema 7902
Endorsement Graph Schema Version 7904
Endorsement Graph Hash 7906
Endorsement Graph Signature 7908
Endorsement Graph Collection 7910
Node(s) 7912
Endorsement 7914
Content 2912
State 2610
Connection 6014
Edge(s) 7940

FIGURE 79

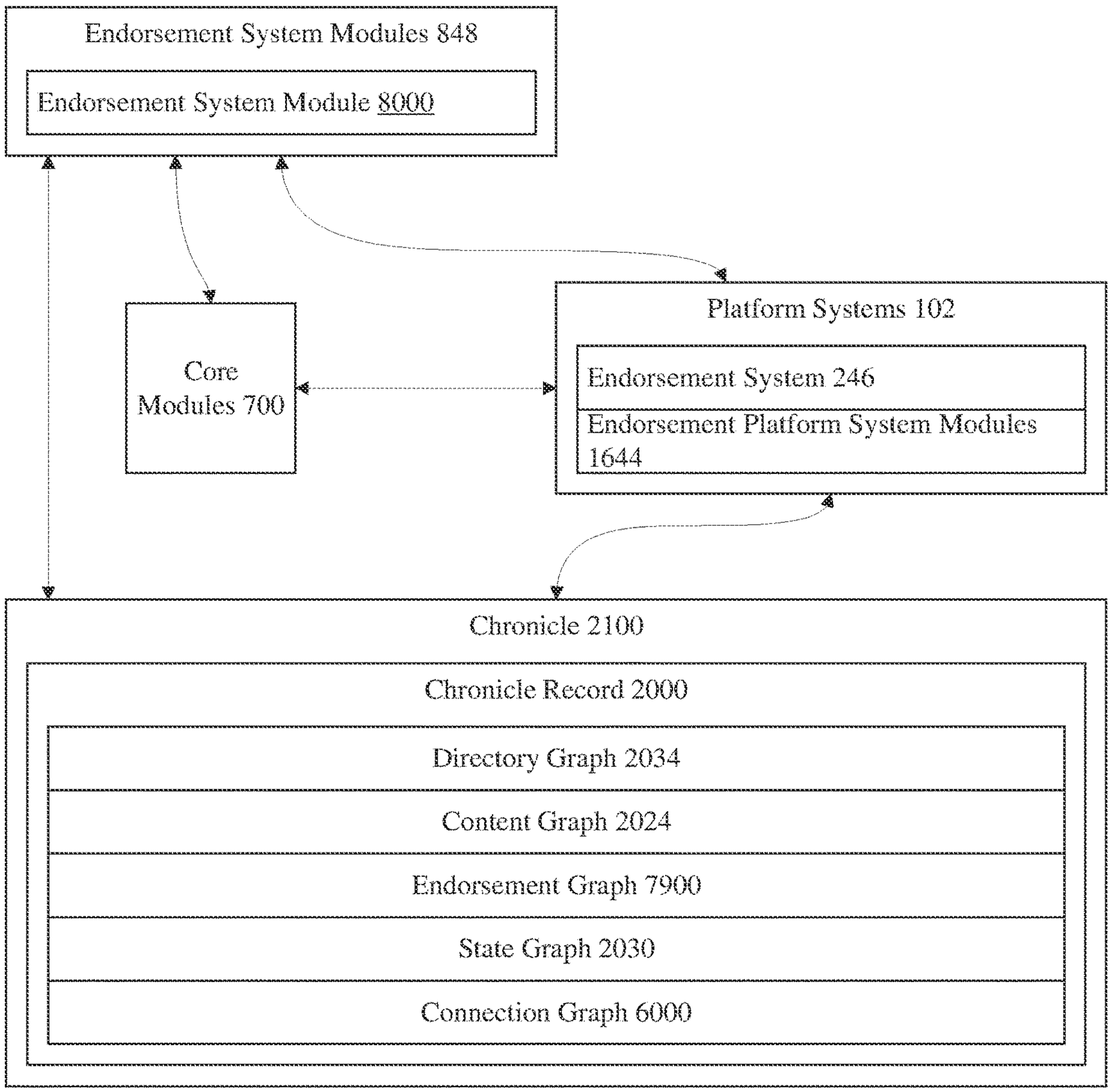

Endorsement System Modules 848
Endorsement System Module 8000
Core Modules 700
Platform Systems 102
Endorsement System 246
Endorsement Platform System Modules 1644
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Endorsement Graph 7900
State Graph 2030
Connection Graph 6000

FIGURE 80

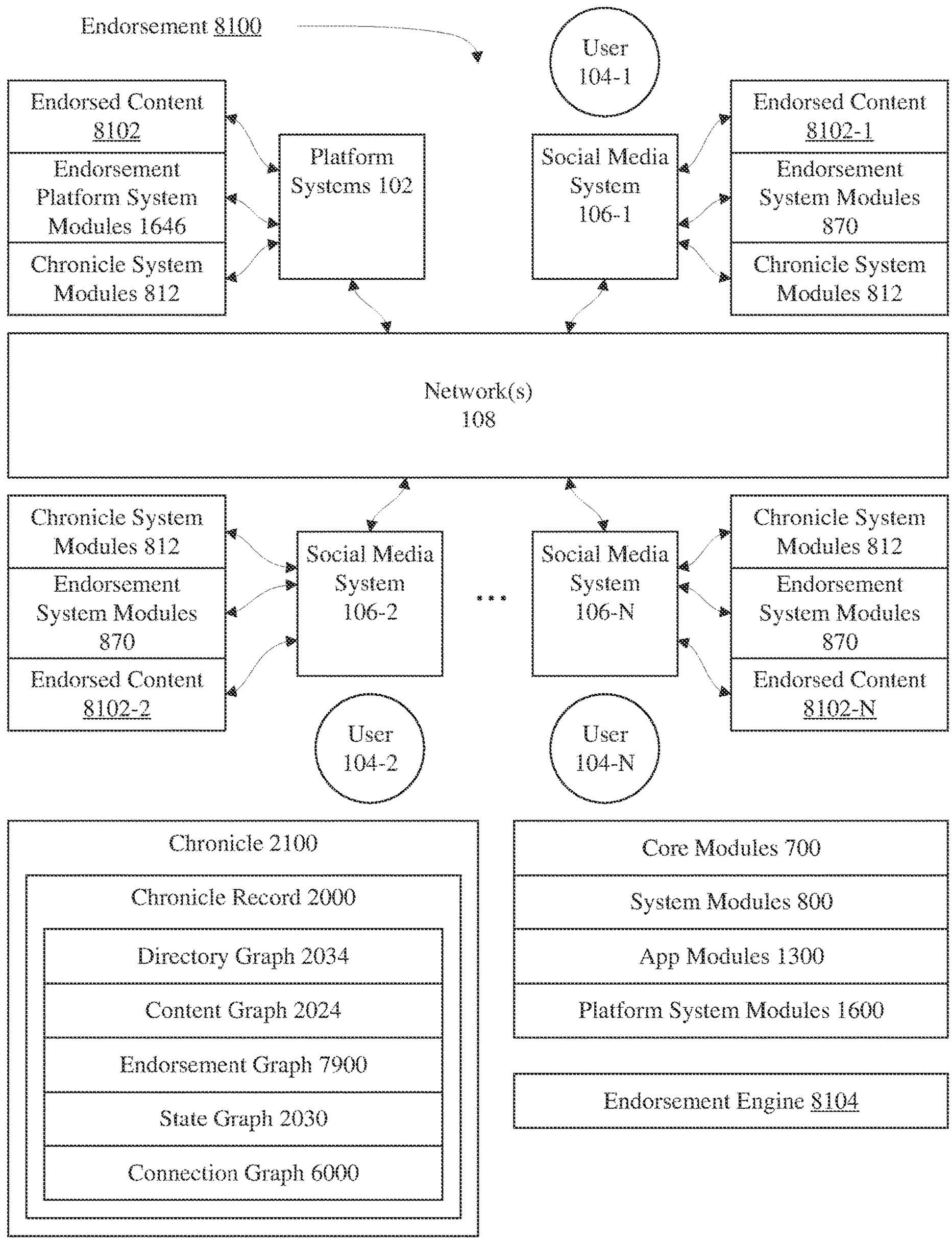

Endorsement 8100
User 104-1
Endorsed Content 8102
Endorsement Platform System Modules 1646
Chronicle System Modules 812
Platform Systems 102
Social Media System 106-1
Endorsed Content 8102-1
Endorsement System Modules 870
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Endorsement System Modules 870
Endorsed Content 8102-2
Social Media System 106-2
...
Social Media System 106-N
Chronicle System Modules 812
Endorsement System Modules 870
Endorsed Content 8102-N
User 104-2
User 104-N
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Endorsement Graph 7900
State Graph 2030
Connection Graph 6000
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600
Endorsement Engine 8104

FIGURE 81

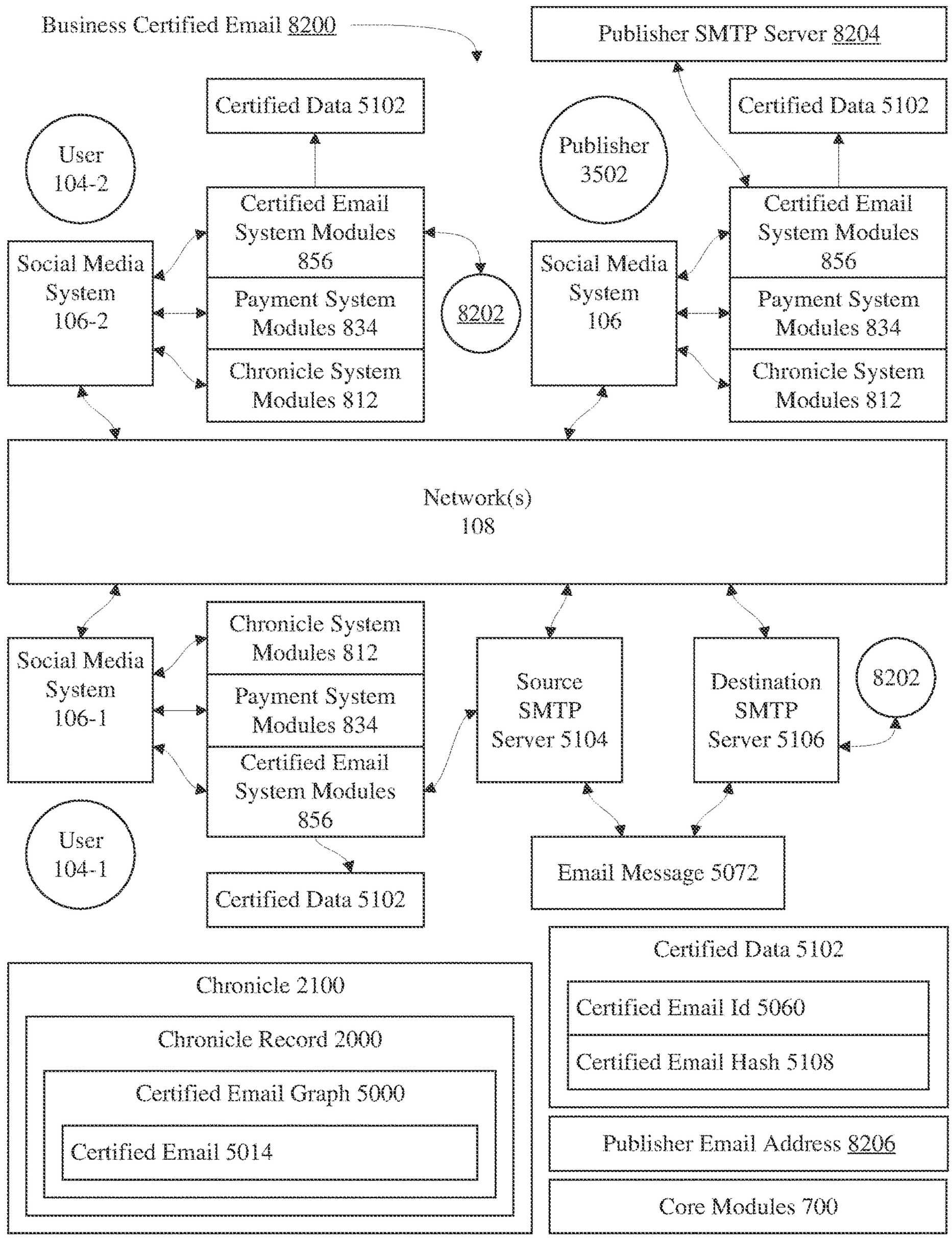
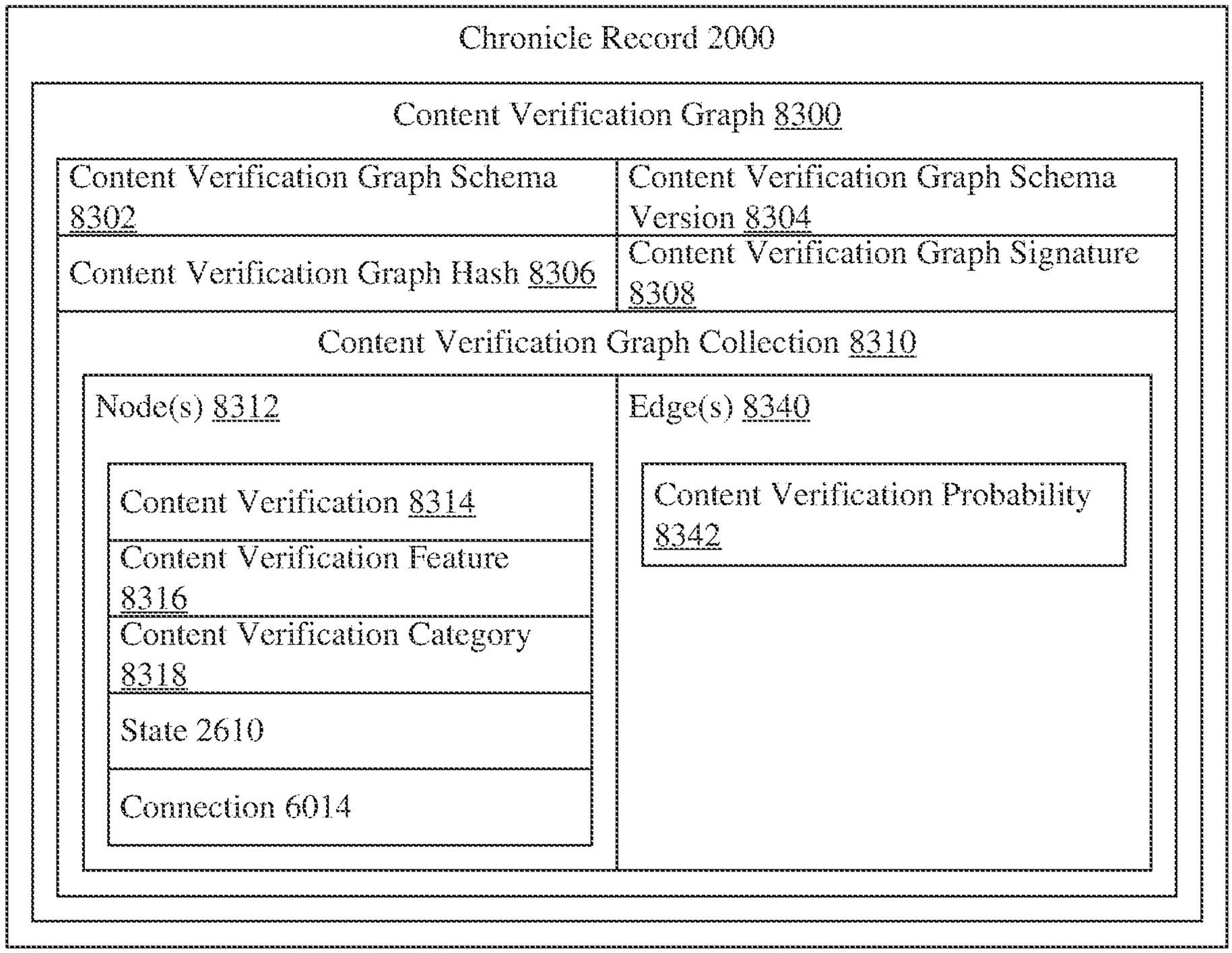

Business Certified Email 8200
Publisher SMTP Server 8204
Certified Data 5102
Certified Data 5102
User 104-2
Publisher 3502
Certified Email System Modules 856
Certified Email System Modules 856
Social Media System 106-2
Payment System Modules 834
8202
Social Media System 106
Payment System Modules 834
Chronicle System Modules 812
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Social Media System 106-1
Payment System Modules 834
Source SMTP Server 5104
Destination SMTP Server 5106
8202
Certified Email System Modules 856
User 104-1
Email Message 5072
Certified Data 5102
Certified Data 5102
Chronicle 2100
Certified Email Id 5060
Chronicle Record 2000
Certified Email Hash 5108
Certified Email Graph 5000
Certified Email 5014
Publisher Email Address 8206
Core Modules 700

FIGURE 82


Chronicle Record 2000
Content Verification Graph 8300
Content Verification Graph Schema 8302
Content Verification Graph Schema Version 8304
Content Verification Graph Hash 8306
Content Verification Graph Signature 8308
Content Verification Graph Collection 8310
Node(s) 8312
Content Verification 8314
Content Verification Feature 8316
Content Verification Category 8318
State 2610
Connection 6014
Edge(s) 8340
Content Verification Probability 8342

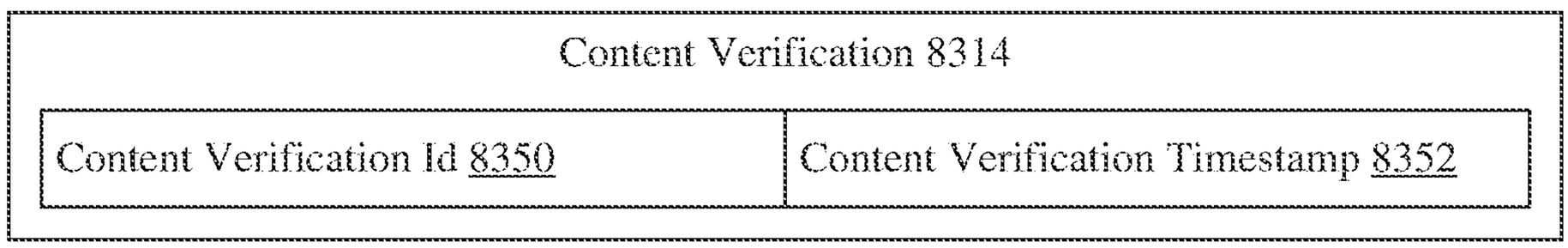

Content Verification 8314
Content Verification Id 8350
Content Verification Timestamp 8352

FIGURE 83

Chronicle Record 2000

Content Verification Features 8400

Content Type 8402	Content Meta Data 8404
Source Location 8406	Content Size 8408
Associated Content 8410	Content Source Frequency 8412
Content Device 8414	Content Filter Scan 8416
Video Sound Analysis 8418	Video Text Analysis 8420
Video Object Analysis 8422	Video Subject Analysis 8424
Picture Text Analysis 8426	Picture Object Analysis 8428
Picture Subject Analysis 8430	Source Hash Analysis 8432
Text Subject Analysis 8434	Text Key Word Analysis 8436

FIGURE 84

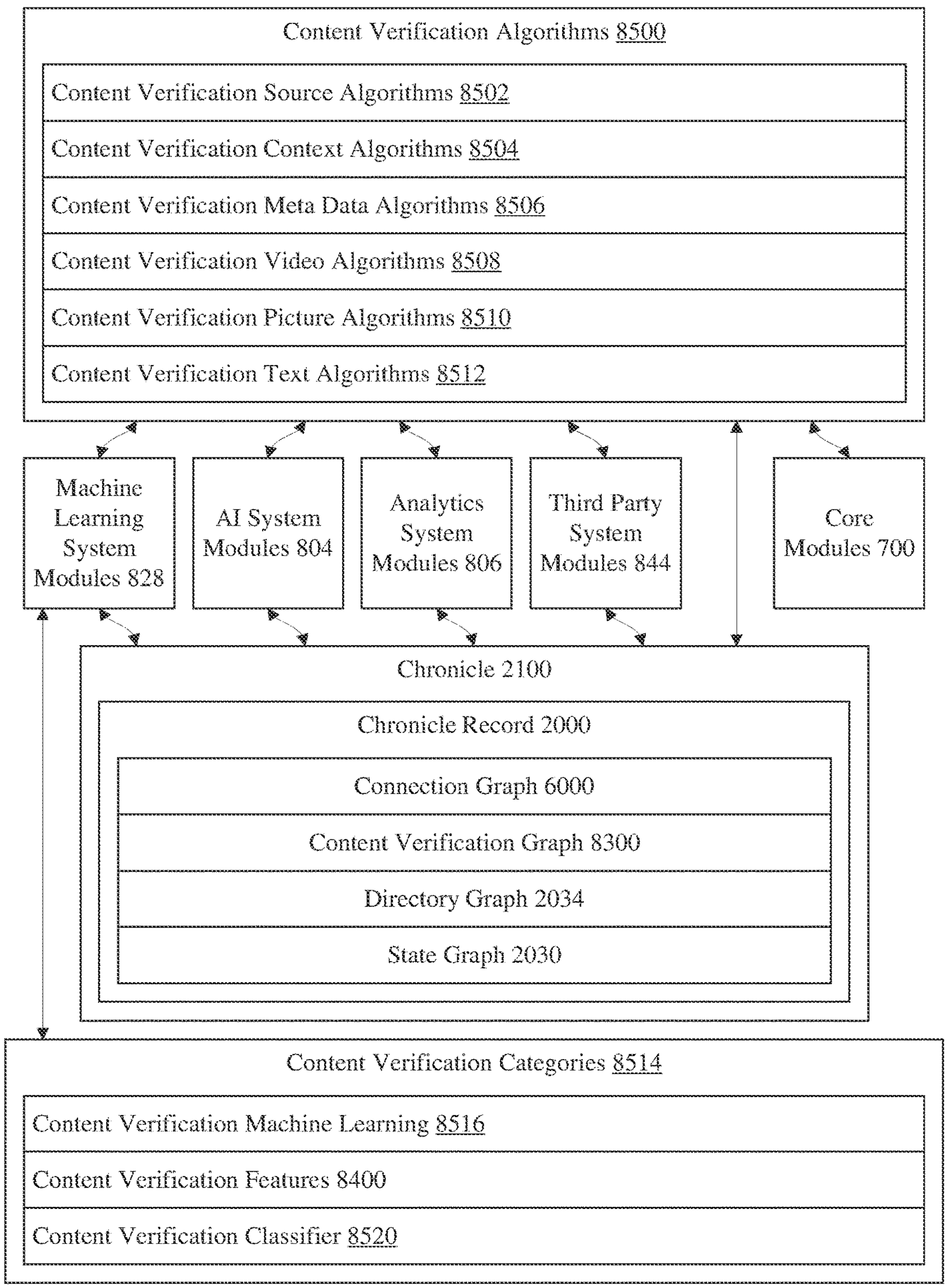

Content Verification Algorithms 8500
Content Verification Source Algorithms 8502
Content Verification Context Algorithms 8504
Content Verification Meta Data Algorithms 8506
Content Verification Video Algorithms 8508
Content Verification Picture Algorithms 8510
Content Verification Text Algorithms 8512
Machine Learning System Modules 828
AI System Modules 804
Analytics System Modules 806
Third Party System Modules 844
Core Modules 700
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Content Verification Graph 8300
Directory Graph 2034
State Graph 2030
Content Verification Categories 8514
Content Verification Machine Learning 8516
Content Verification Features 8400
Content Verification Classifier 8520

FIGURE 85

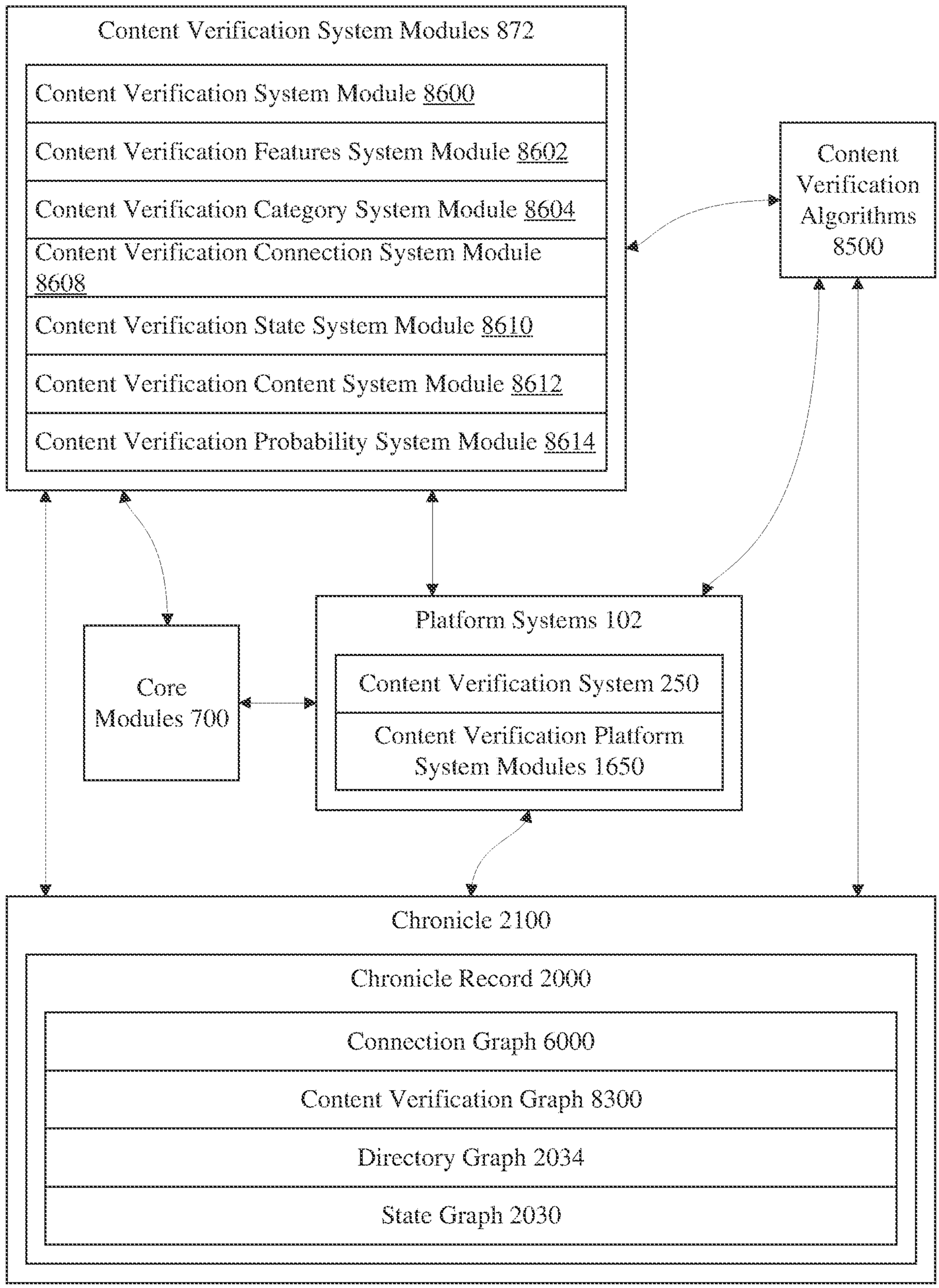

Content Verification System Modules 872
Content Verification System Module 8600
Content Verification Features System Module 8602
Content Verification Category System Module 8604
Content Verification Connection System Module 8608
Content Verification State System Module 8610
Content Verification Content System Module 8612
Content Verification Probability System Module 8614
Content Verification Algorithms 8500
Core Modules 700
Platform Systems 102
Content Verification System 250
Content Verification Platform System Modules 1650
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Content Verification Graph 8300
Directory Graph 2034
State Graph 2030

FIGURE 86

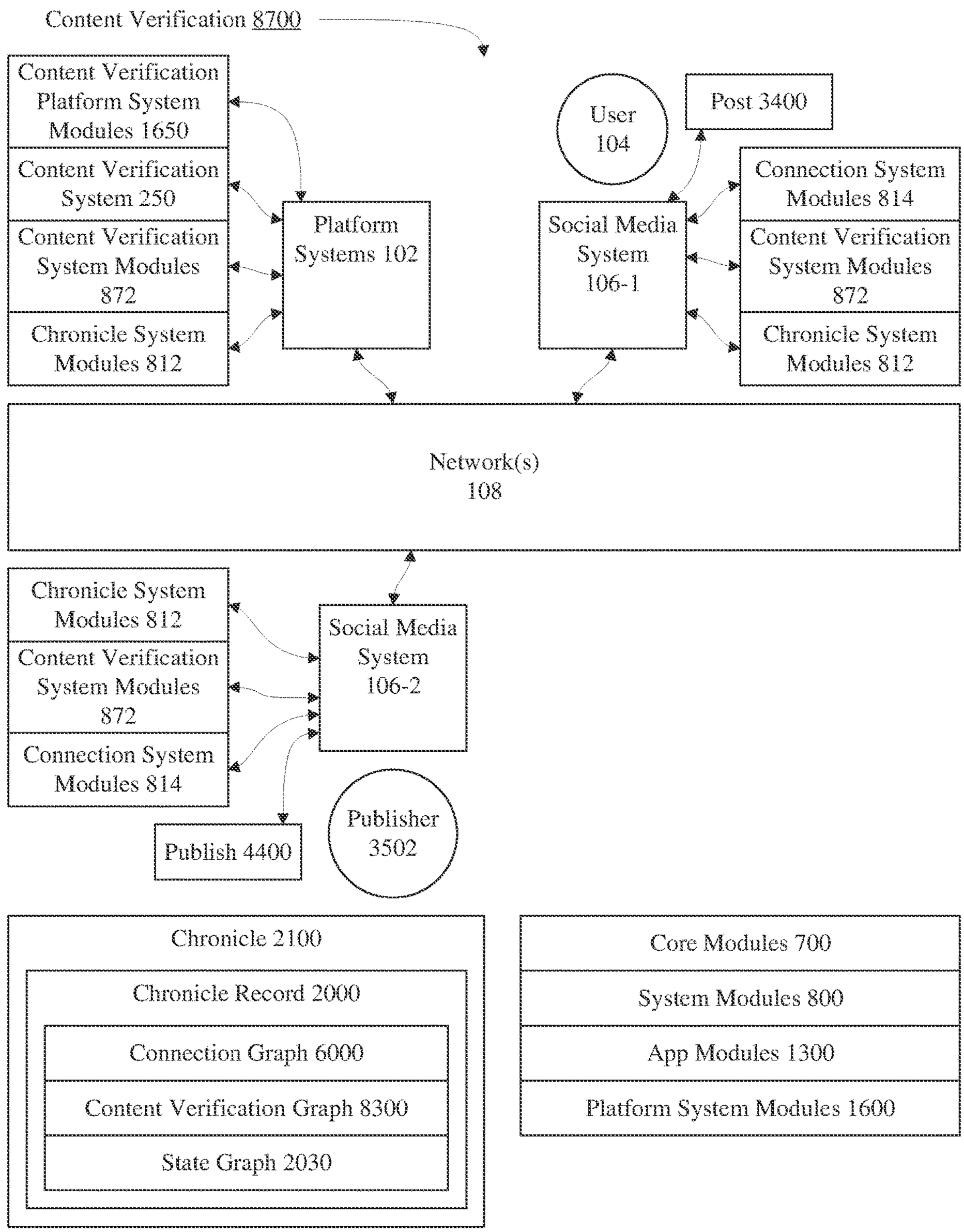

Content Verification 8700
Content Verification Platform System Modules 1650
Content Verification System 250
Content Verification System Modules 872
Chronicle System Modules 812
Platform Systems 102
User 104
Post 3400
Social Media System 106-1
Connection System Modules 814
Content Verification System Modules 872
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Content Verification System Modules 872
Connection System Modules 814
Social Media System 106-2
Publish 4400
Publisher 3502
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Content Verification Graph 8300
State Graph 2030
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600

FIGURE 87

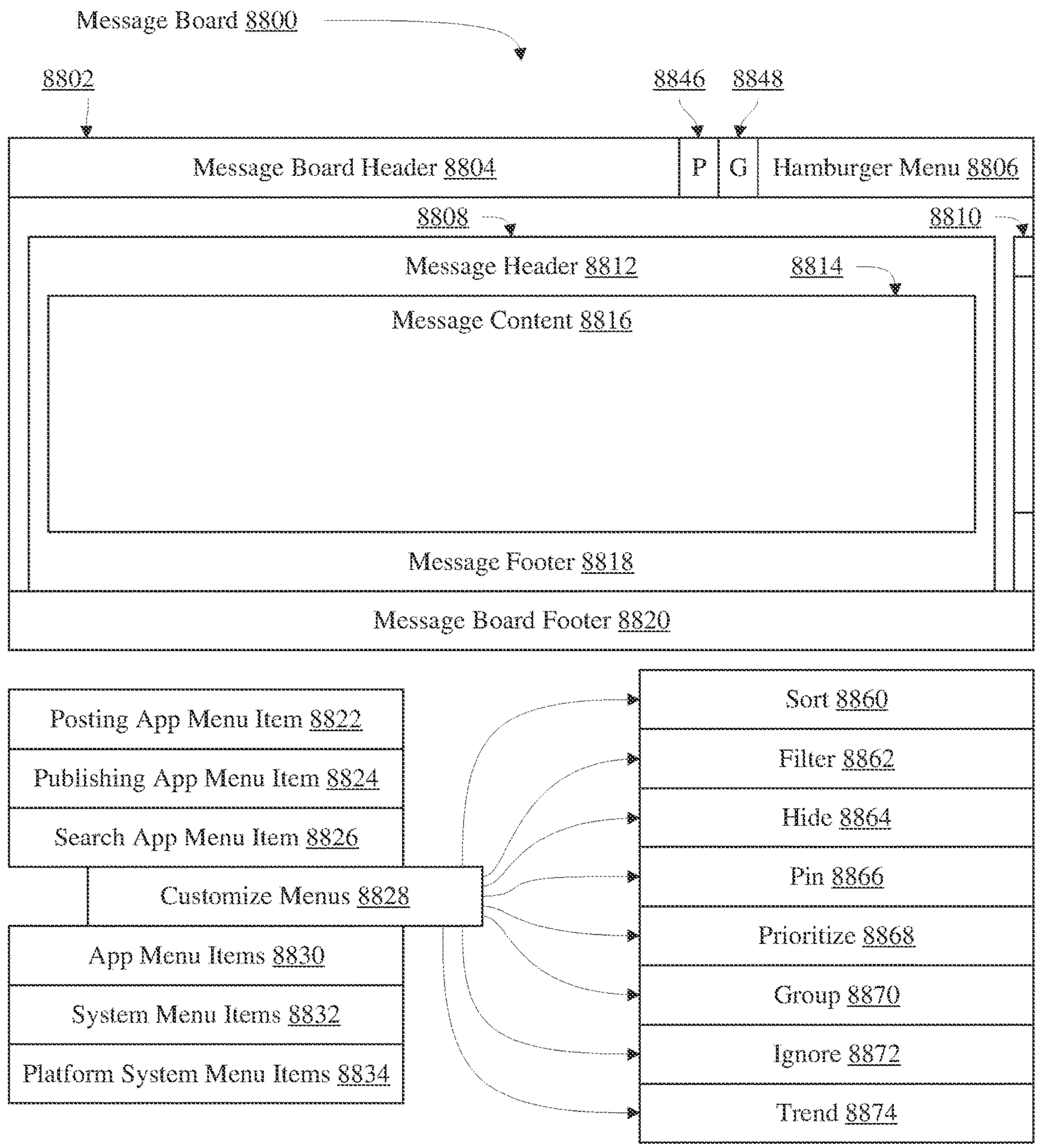

Message Board 8800
8802
8846
8848
Message Board Header 8804
P
G
Hamburger Menu 8806
8808
8810
Message Header 8812
8814
Message Content 8816
Message Footer 8818
Message Board Footer 8820
Posting App Menu Item 8822
Publishing App Menu Item 8824
Search App Menu Item 8826
Customize Menus 8828
App Menu Items 8830
System Menu Items 8832
Platform System Menu Items 8834
Sort 8860
Filter 8862
Hide 8864
Pin 8866
Prioritize 8868
Group 8870
Ignore 8872
Trend 8874

FIGURE 88

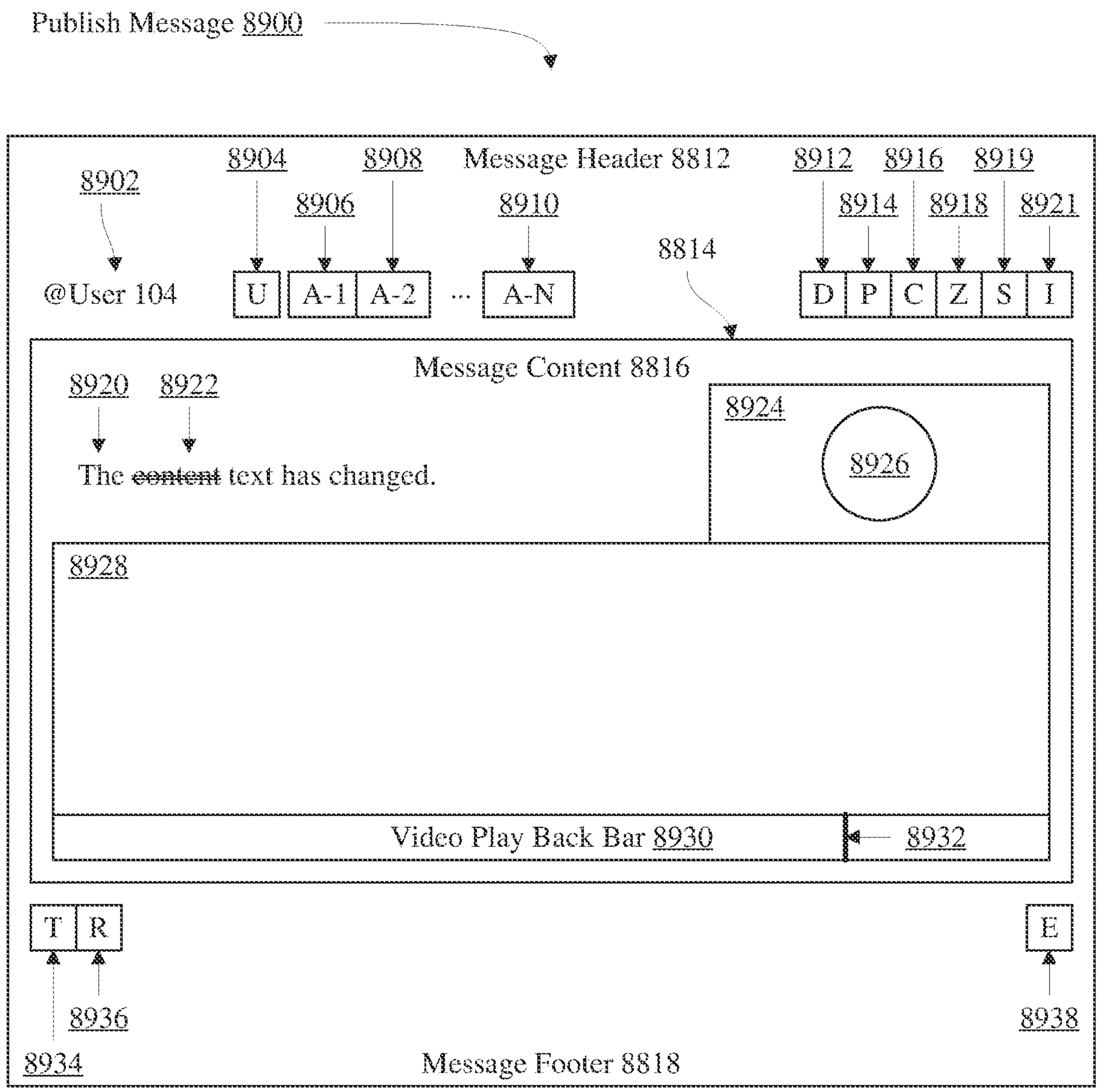

Publish Message 8900
8902
@User 104
8904
8906
8908
8910
Message Header 8812
U
A-1
A-2
...
A-N
8912
8914
8916
8918
8919
8921
D
P
C
Z
S
I
8814
Message Content 8816
8920
8922
The ~~content~~ text has changed.
8924
8926
8928
Video Play Back Bar 8930
8932
T
R
E
8936
8938
8934
Message Footer 8818

FIGURE 89

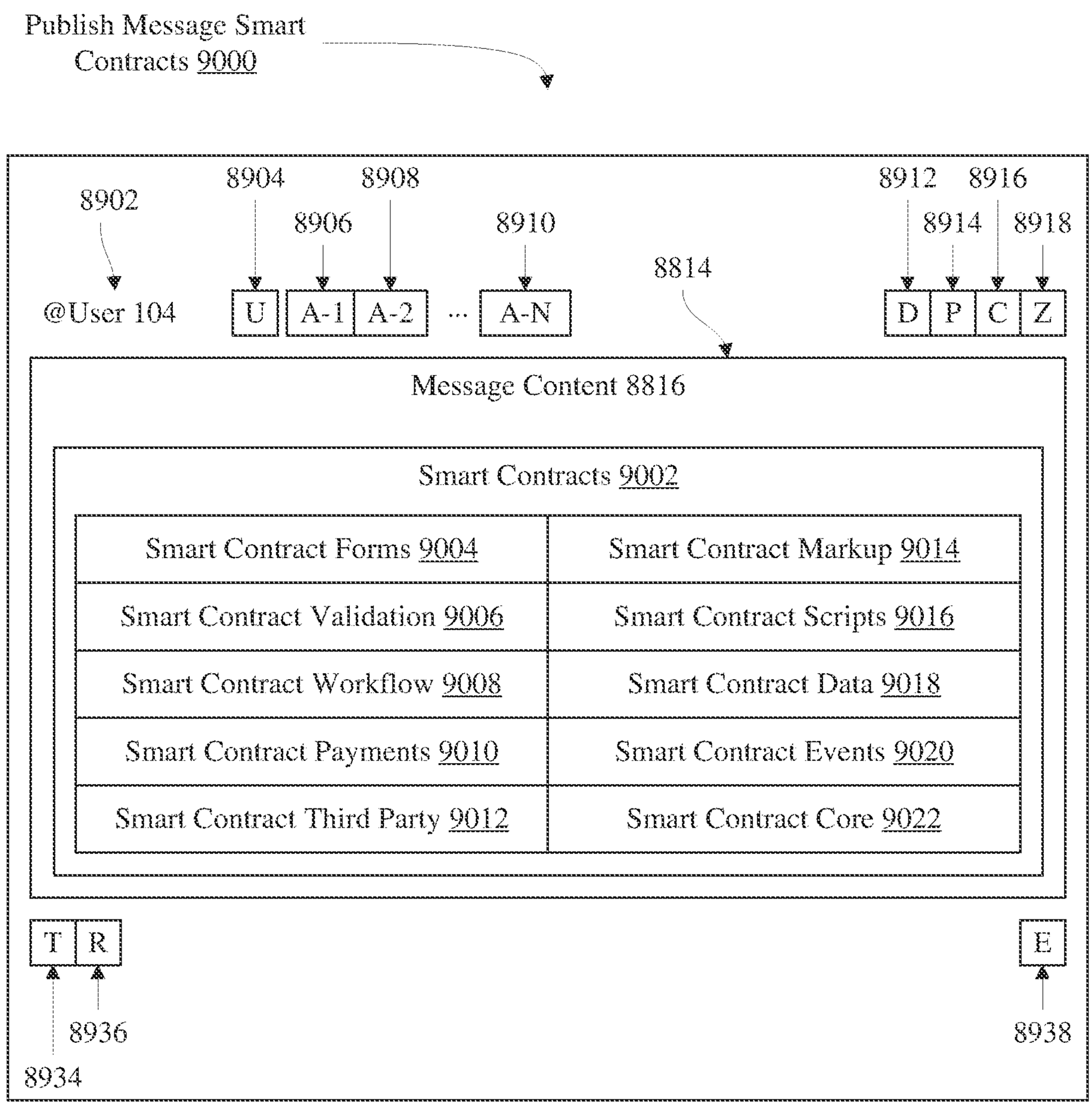

Publish Message Smart Contracts 9000
8902
@User 104
8904
8906
8908
8910
U
A-1
A-2
...
A-N
8814
8912
8914
8916
8918
D
P
C
Z
Message Content 8816
Smart Contracts 9002
Smart Contract Forms 9004
Smart Contract Markup 9014
Smart Contract Validation 9006
Smart Contract Scripts 9016
Smart Contract Workflow 9008
Smart Contract Data 9018
Smart Contract Payments 9010
Smart Contract Events 9020
Smart Contract Third Party 9012
Smart Contract Core 9022
T
R
8934
8936
E
8938

FIGURE 90

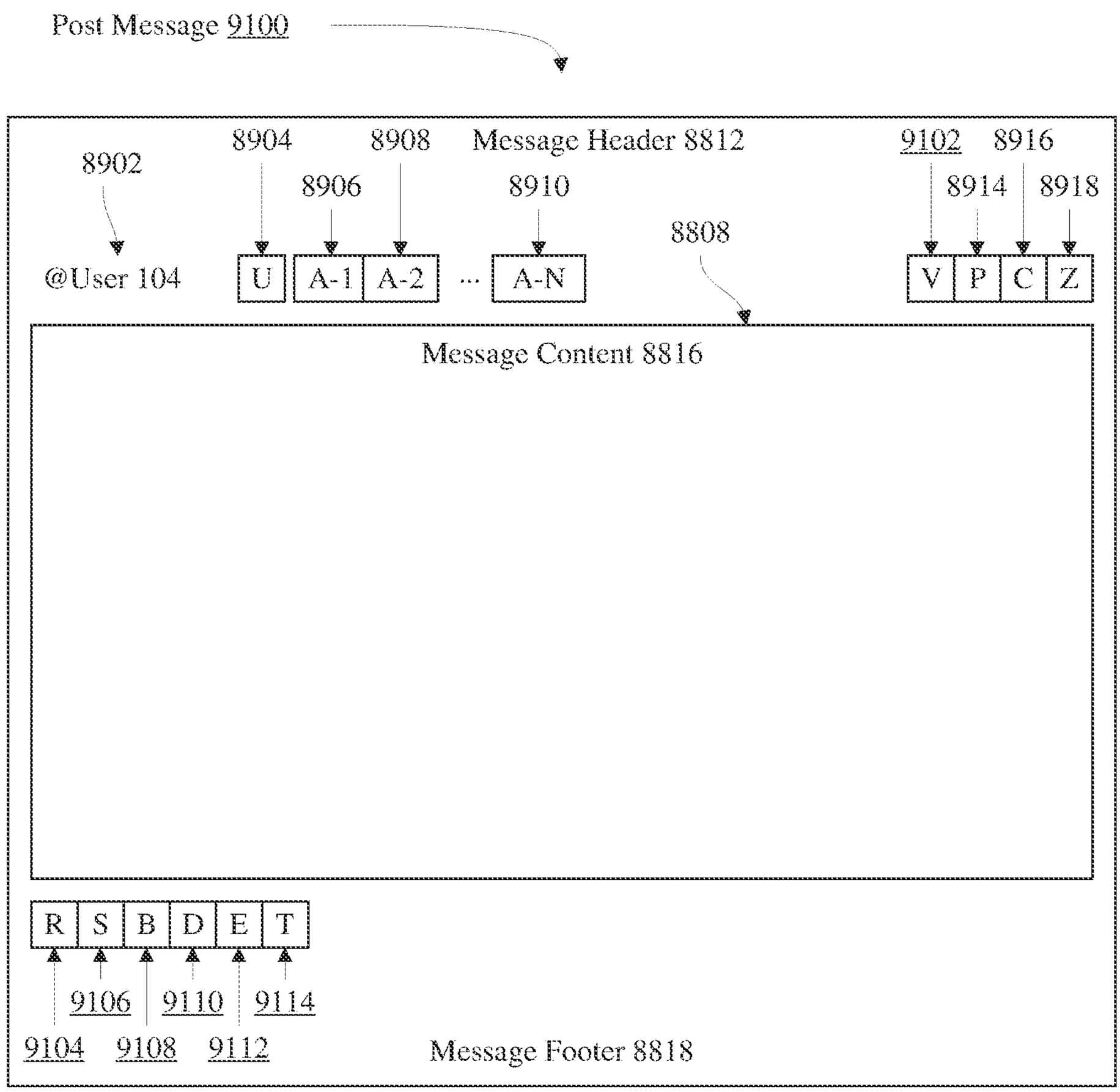

Post Message 9100
8902
@User 104
8904
8906
8908
8910
Message Header 8812
U
A-1
A-2
...
A-N
9102
8914
8916
8918
V
P
C
Z
8808
Message Content 8816
R
S
B
D
E
T
9104
9106
9108
9110
9112
9114
Message Footer 8818

FIGURE 91

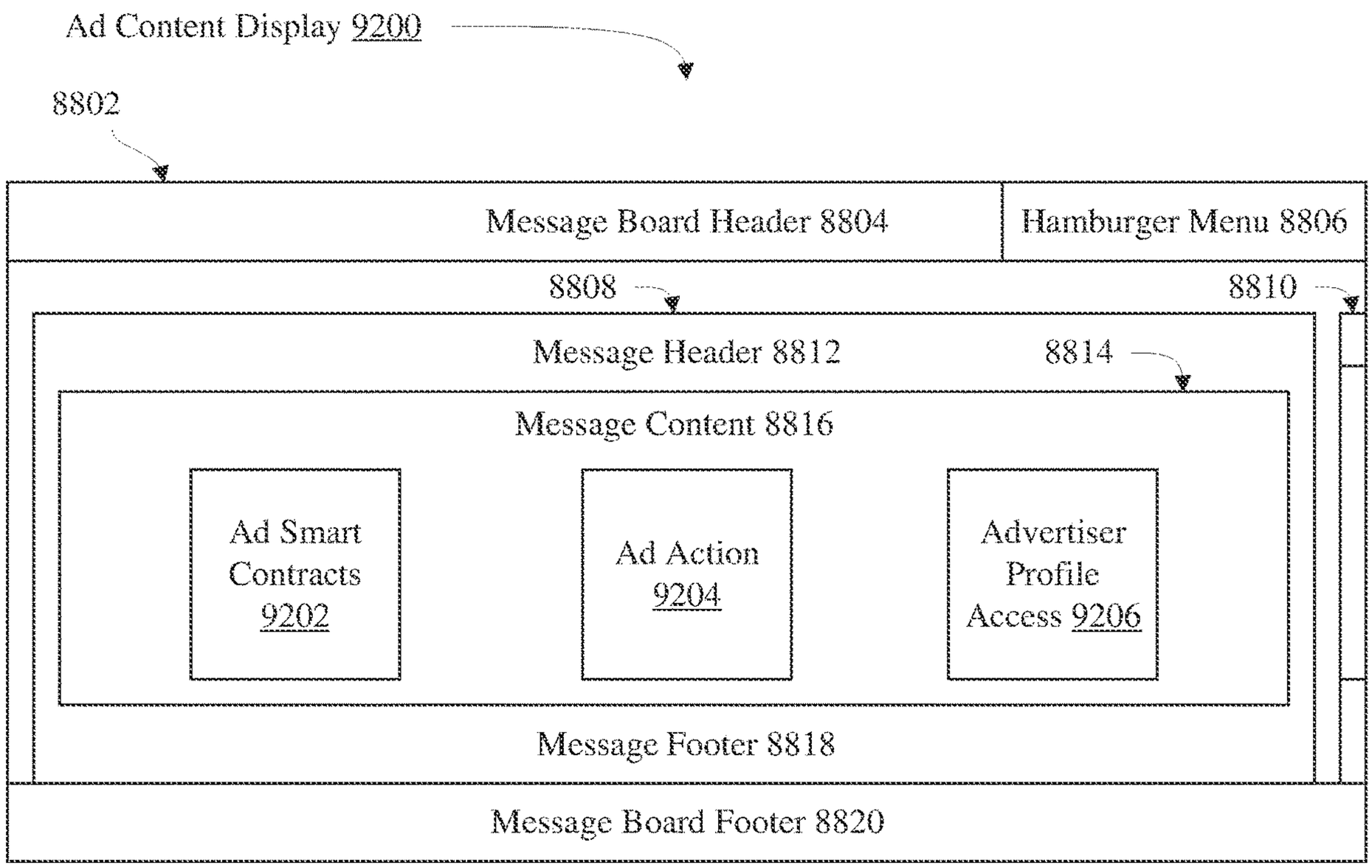

Ad Content Display 9200
8802
Message Board Header 8804
Hamburger Menu 8806
8808
8810
Message Header 8812
8814
Message Content 8816
Ad Smart Contracts 9202
Ad Action 9204
Advertiser Profile Access 9206
Message Footer 8818
Message Board Footer 8820

FIGURE 92

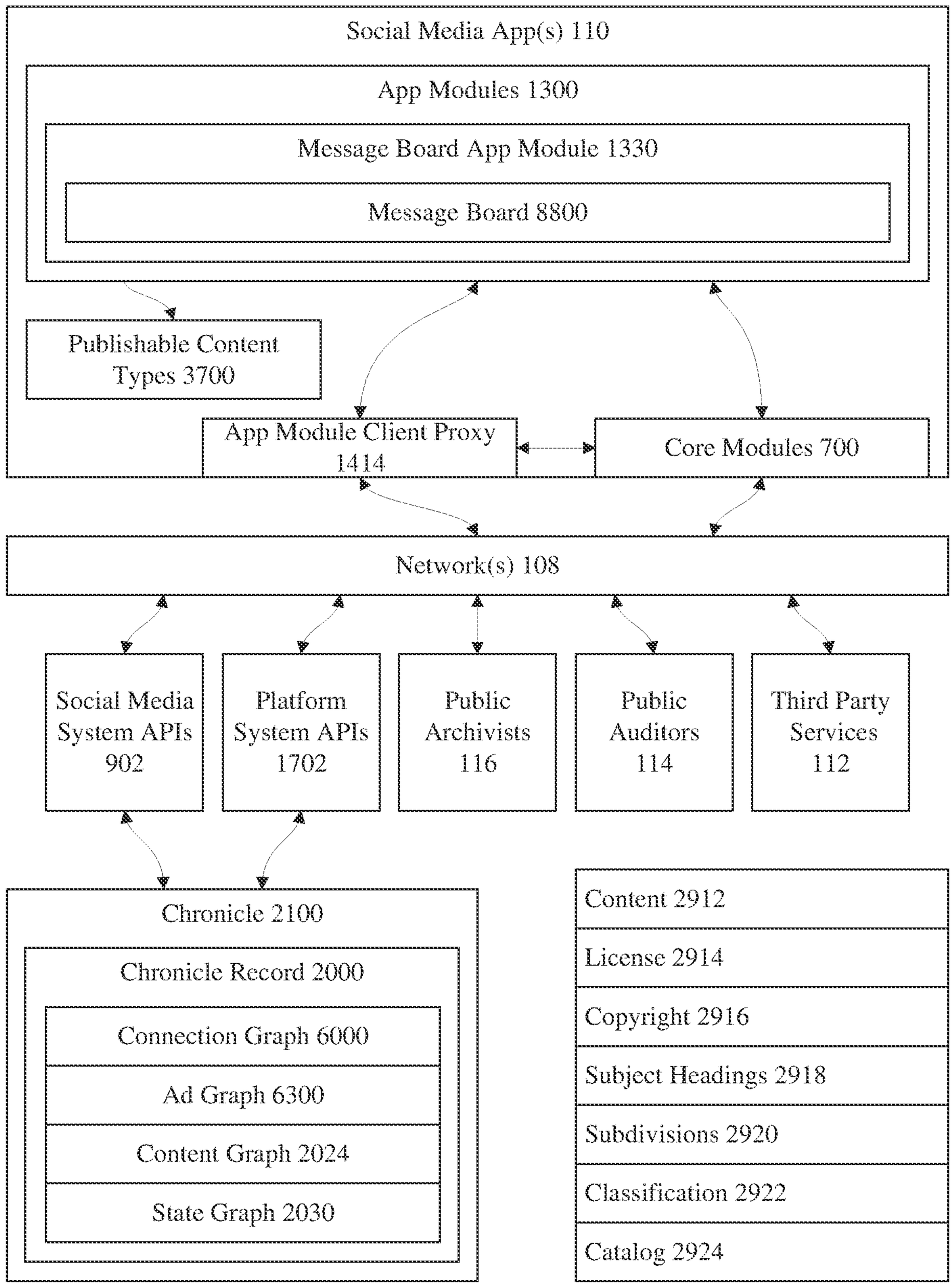

Social Media App(s) 110
App Modules 1300
Message Board App Module 1330
Message Board 8800
Publishable Content Types 3700
App Module Client Proxy 1414
Core Modules 700
Network(s) 108
Social Media System APIs 902
Platform System APIs 1702
Public Archivists 116
Public Auditors 114
Third Party Services 112
Chronicle 2100
Chronicle Record 2000
Connection Graph 6000
Ad Graph 6300
Content Graph 2024
State Graph 2030
Content 2912
License 2914
Copyright 2916
Subject Headings 2918
Subdivisions 2920
Classification 2922
Catalog 2924

FIGURE 93

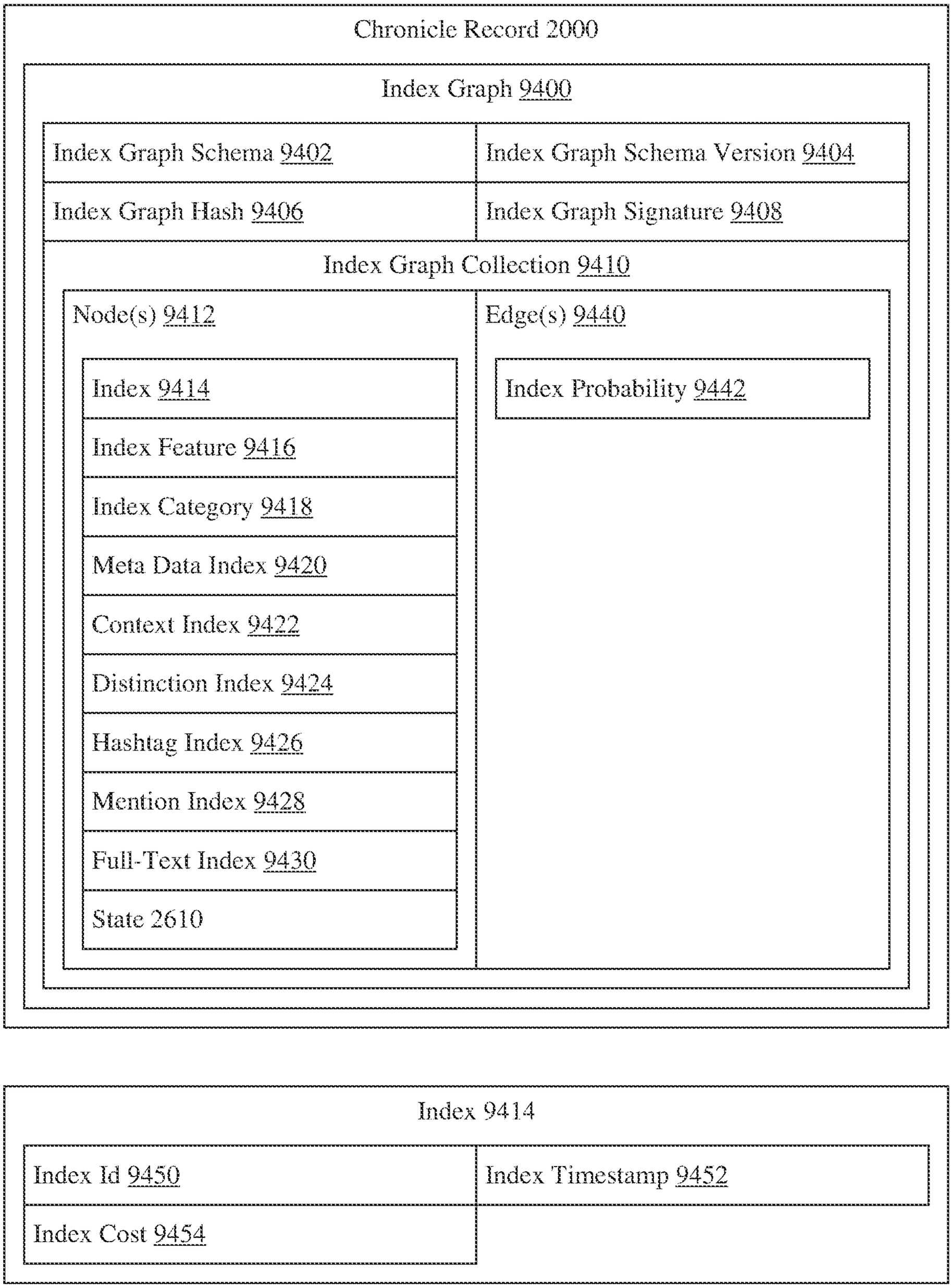

Chronicle Record 2000
Index Graph 9400
Index Graph Schema 9402
Index Graph Schema Version 9404
Index Graph Hash 9406
Index Graph Signature 9408
Index Graph Collection 9410
Node(s) 9412
Edge(s) 9440
Index 9414
Index Feature 9416
Index Category 9418
Meta Data Index 9420
Context Index 9422
Distinction Index 9424
Hashtag Index 9426
Mention Index 9428
Full-Text Index 9430
State 2610
Index Probability 9442
Index 9414
Index Id 9450
Index Timestamp 9452
Index Cost 9454

FIGURE 94

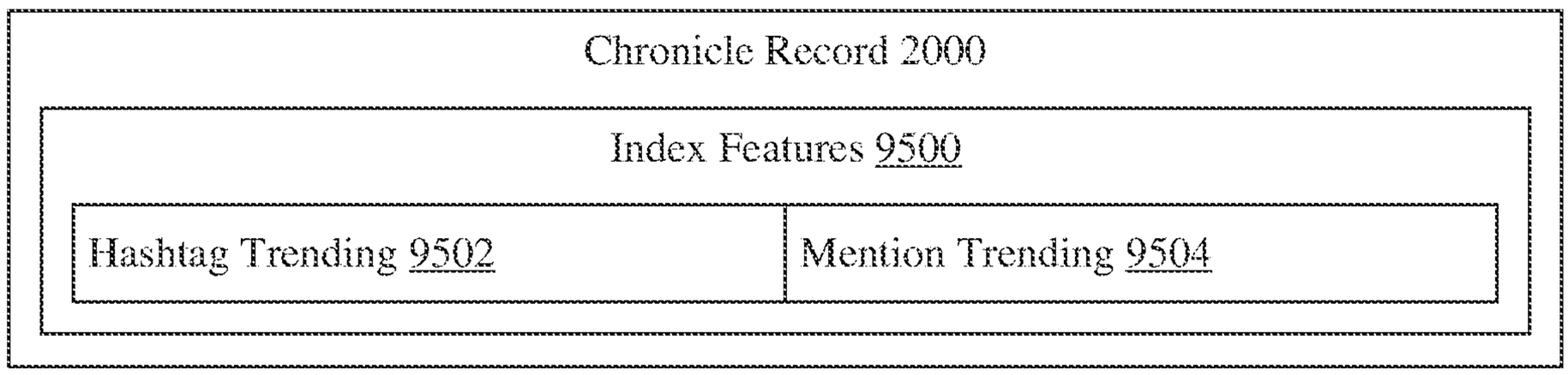

Chronicle Record 2000
Index Features 9500
Hashtag Trending 9502
Mention Trending 9504

FIGURE 95

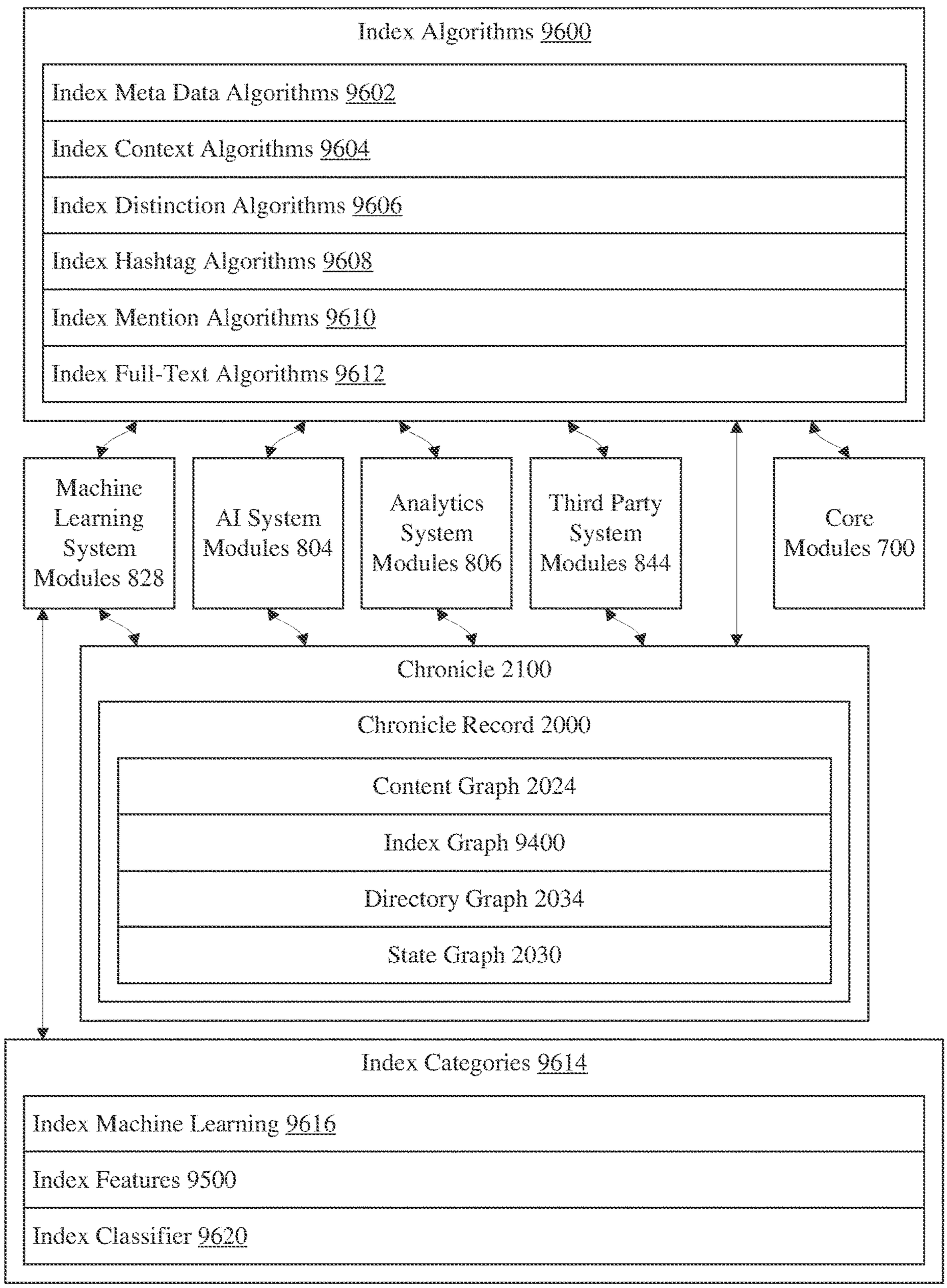

Index Algorithms 9600
Index Meta Data Algorithms 9602
Index Context Algorithms 9604
Index Distinction Algorithms 9606
Index Hashtag Algorithms 9608
Index Mention Algorithms 9610
Index Full-Text Algorithms 9612
Machine Learning System Modules 828
AI System Modules 804
Analytics System Modules 806
Third Party System Modules 844
Core Modules 700
Chronicle 2100
Chronicle Record 2000
Content Graph 2024
Index Graph 9400
Directory Graph 2034
State Graph 2030
Index Categories 9614
Index Machine Learning 9616
Index Features 9500
Index Classifier 9620

FIGURE 96

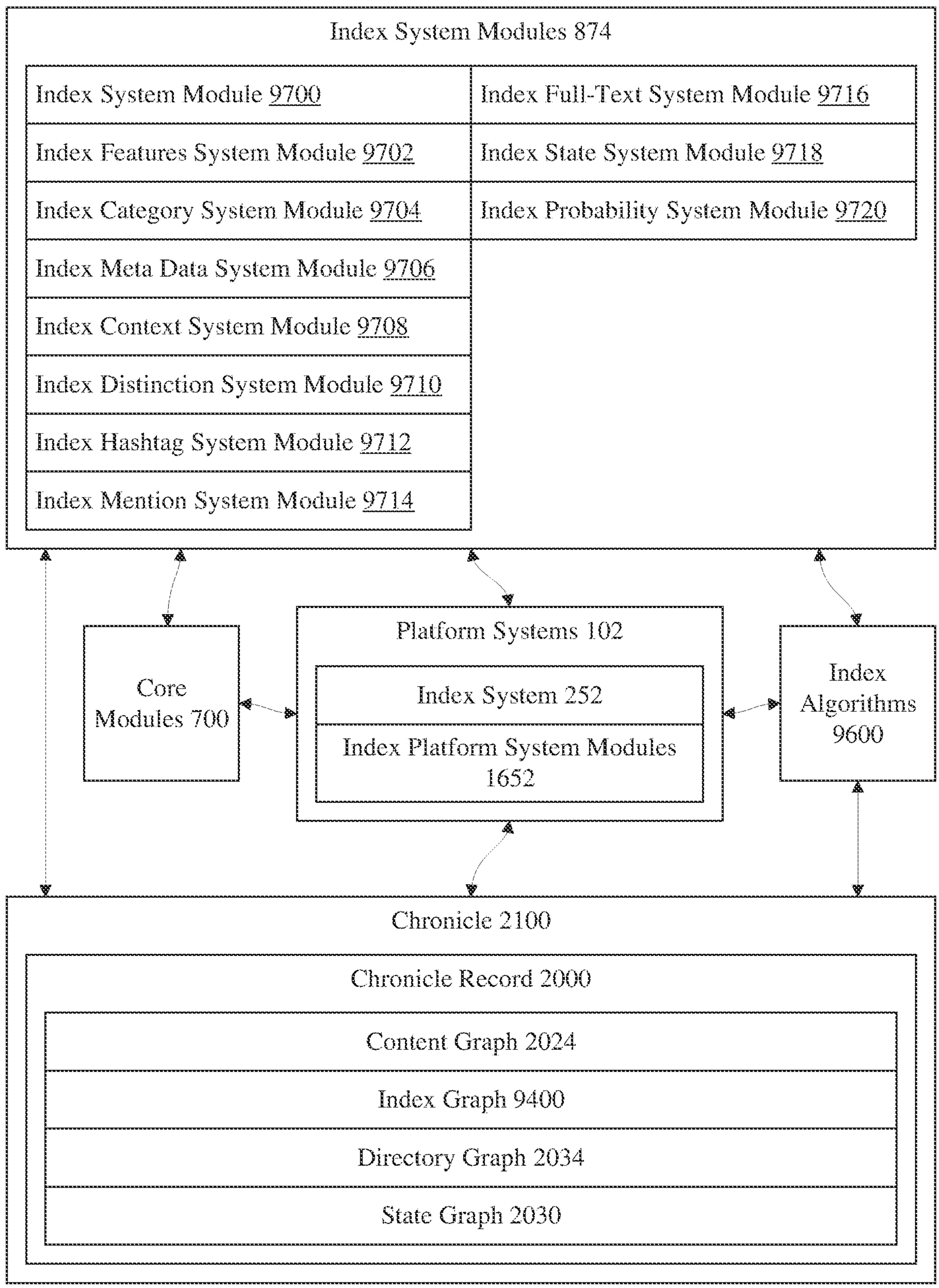

Index System Modules 874
Index System Module 9700
Index Features System Module 9702
Index Category System Module 9704
Index Meta Data System Module 9706
Index Context System Module 9708
Index Distinction System Module 9710
Index Hashtag System Module 9712
Index Mention System Module 9714
Index Full-Text System Module 9716
Index State System Module 9718
Index Probability System Module 9720
Core Modules 700
Platform Systems 102
Index System 252
Index Platform System Modules 1652
Index Algorithms 9600
Chronicle 2100
Chronicle Record 2000
Content Graph 2024
Index Graph 9400
Directory Graph 2034
State Graph 2030

FIGURE 97

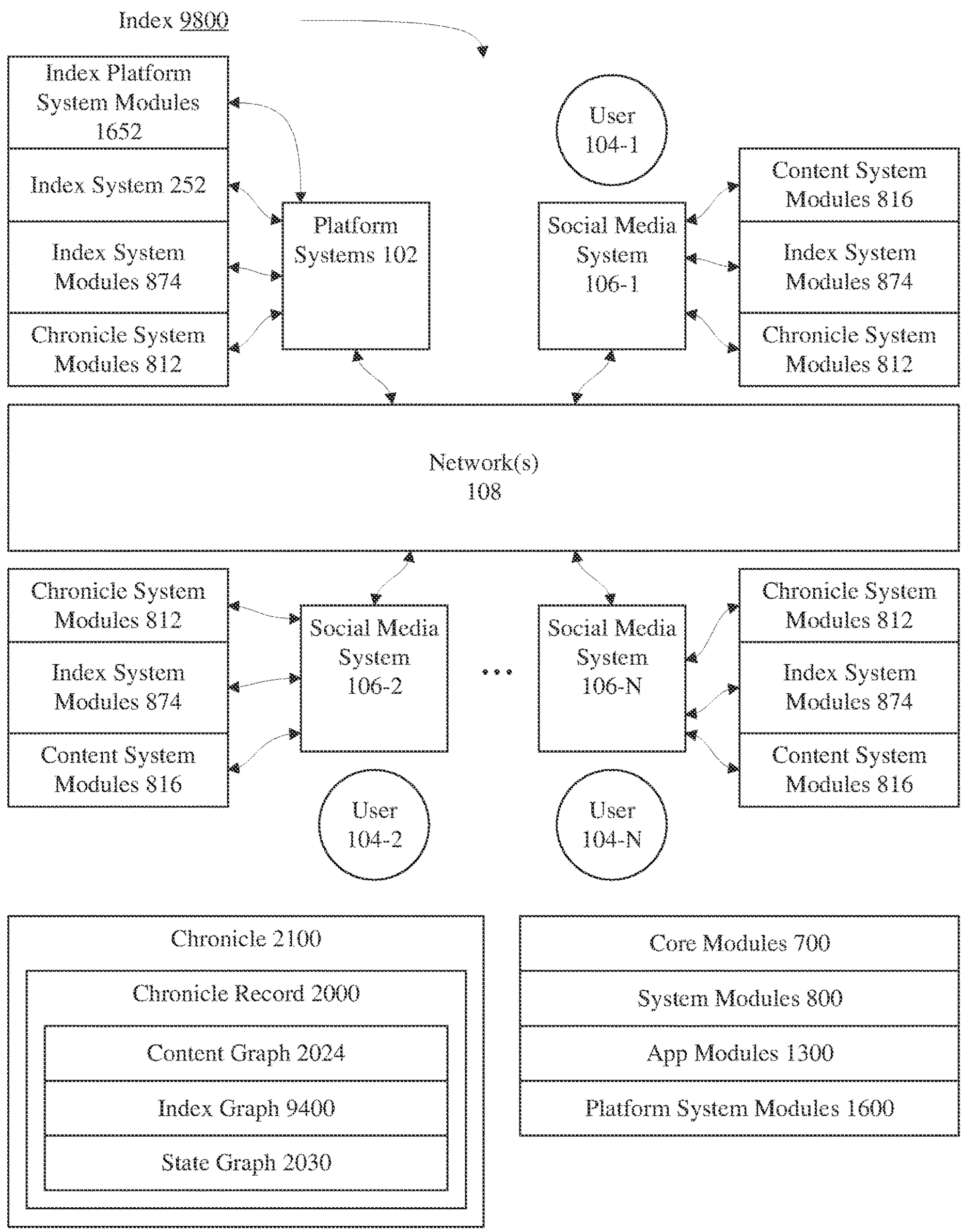

Index 9800
Index Platform System Modules 1652
Index System 252
Index System Modules 874
Chronicle System Modules 812
Platform Systems 102
User 104-1
Social Media System 106-1
Content System Modules 816
Index System Modules 874
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Index System Modules 874
Content System Modules 816
Social Media System 106-2
User 104-2
...
Social Media System 106-N
User 104-N
Chronicle System Modules 812
Index System Modules 874
Content System Modules 816
Chronicle 2100
Chronicle Record 2000
Content Graph 2024
Index Graph 9400
State Graph 2030
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600

FIGURE 98

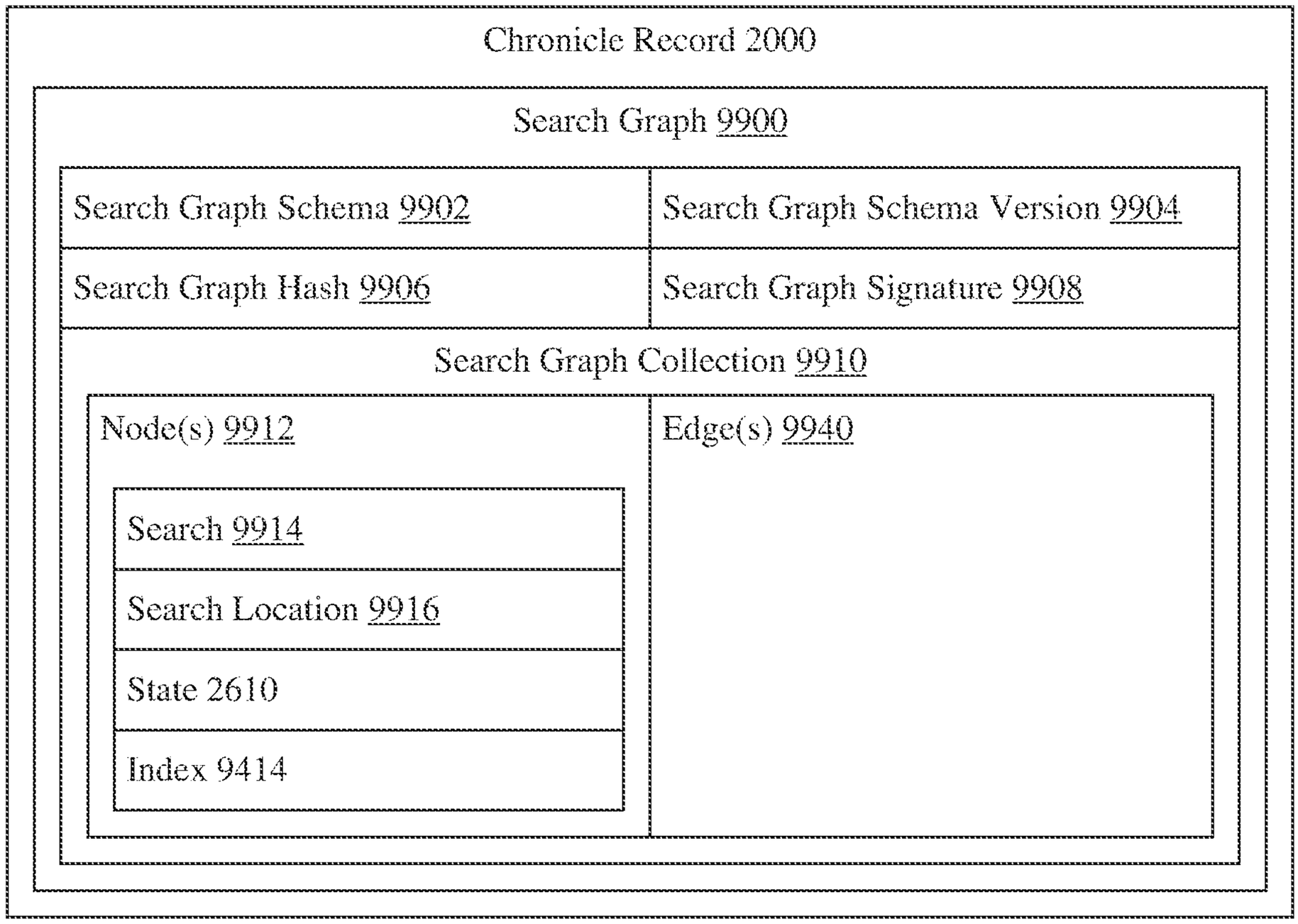

Chronicle Record 2000
Search Graph 9900
Search Graph Schema 9902
Search Graph Schema Version 9904
Search Graph Hash 9906
Search Graph Signature 9908
Search Graph Collection 9910
Node(s) 9912
Edge(s) 9940
Search 9914
Search Location 9916
State 2610
Index 9414

FIGURE 99

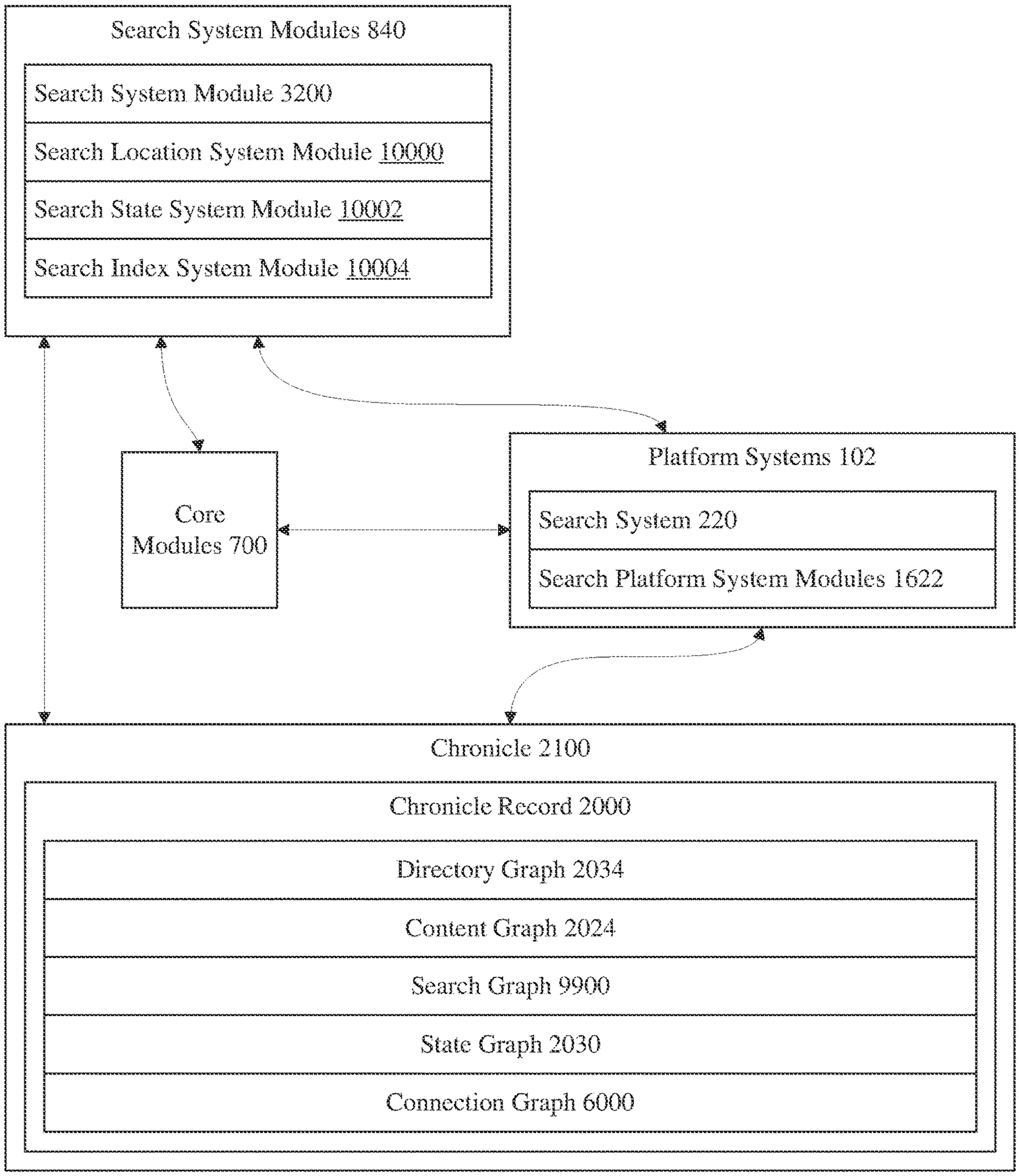

Search System Modules 840
Search System Module 3200
Search Location System Module 10000
Search State System Module 10002
Search Index System Module 10004
Core Modules 700
Platform Systems 102
Search System 220
Search Platform System Modules 1622
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Search Graph 9900
State Graph 2030
Connection Graph 6000

FIGURE 100

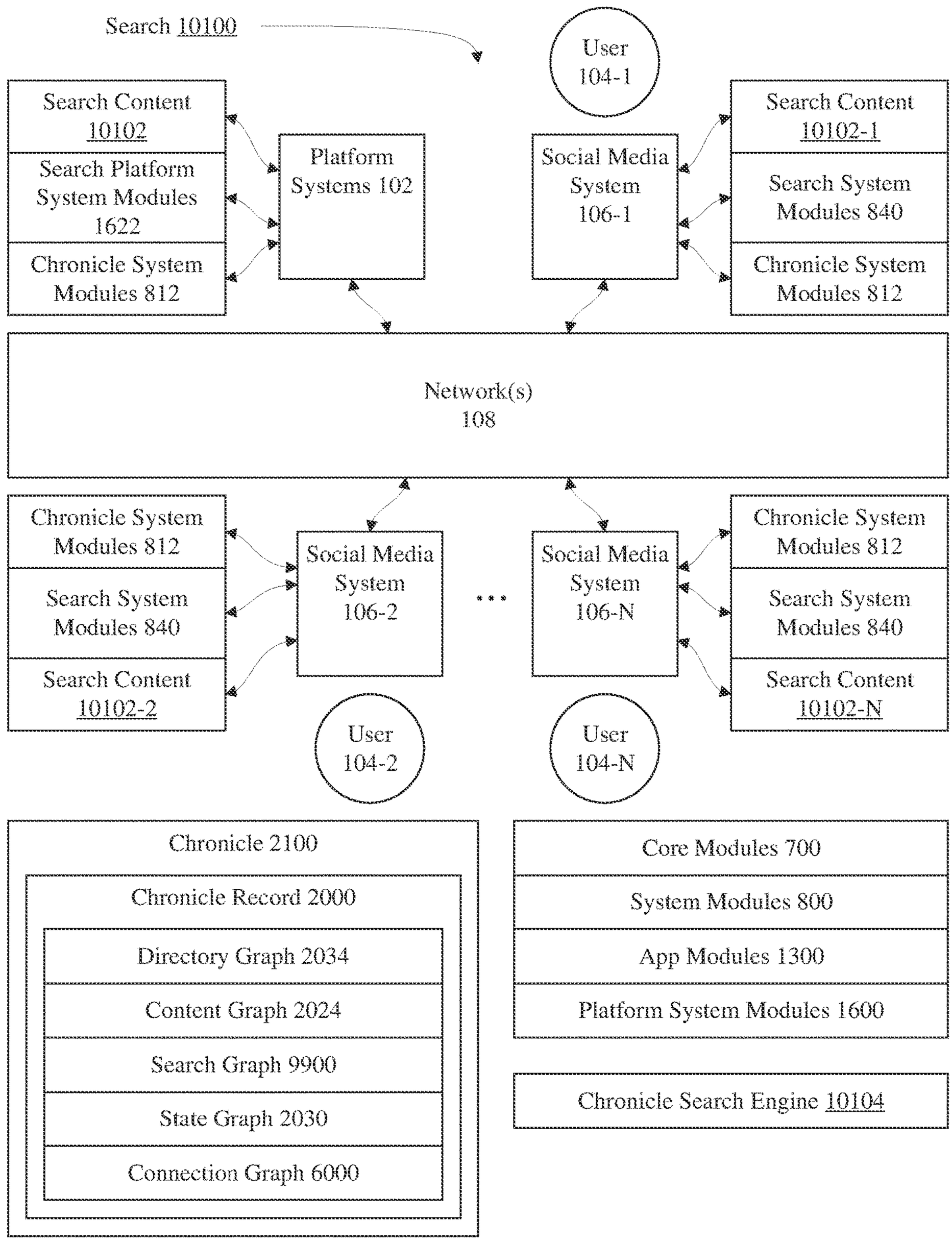

Search 10100
User 104-1
Search Content 10102
Search Platform System Modules 1622
Chronicle System Modules 812
Platform Systems 102
Social Media System 106-1
Search Content 10102-1
Search System Modules 840
Chronicle System Modules 812
Network(s) 108
Chronicle System Modules 812
Search System Modules 840
Search Content 10102-2
Social Media System 106-2
User 104-2
Social Media System 106-N
User 104-N
Chronicle System Modules 812
Search System Modules 840
Search Content 10102-N
Chronicle 2100
Chronicle Record 2000
Directory Graph 2034
Content Graph 2024
Search Graph 9900
State Graph 2030
Connection Graph 6000
Core Modules 700
System Modules 800
App Modules 1300
Platform System Modules 1600
Chronicle Search Engine 10104

FIGURE 101

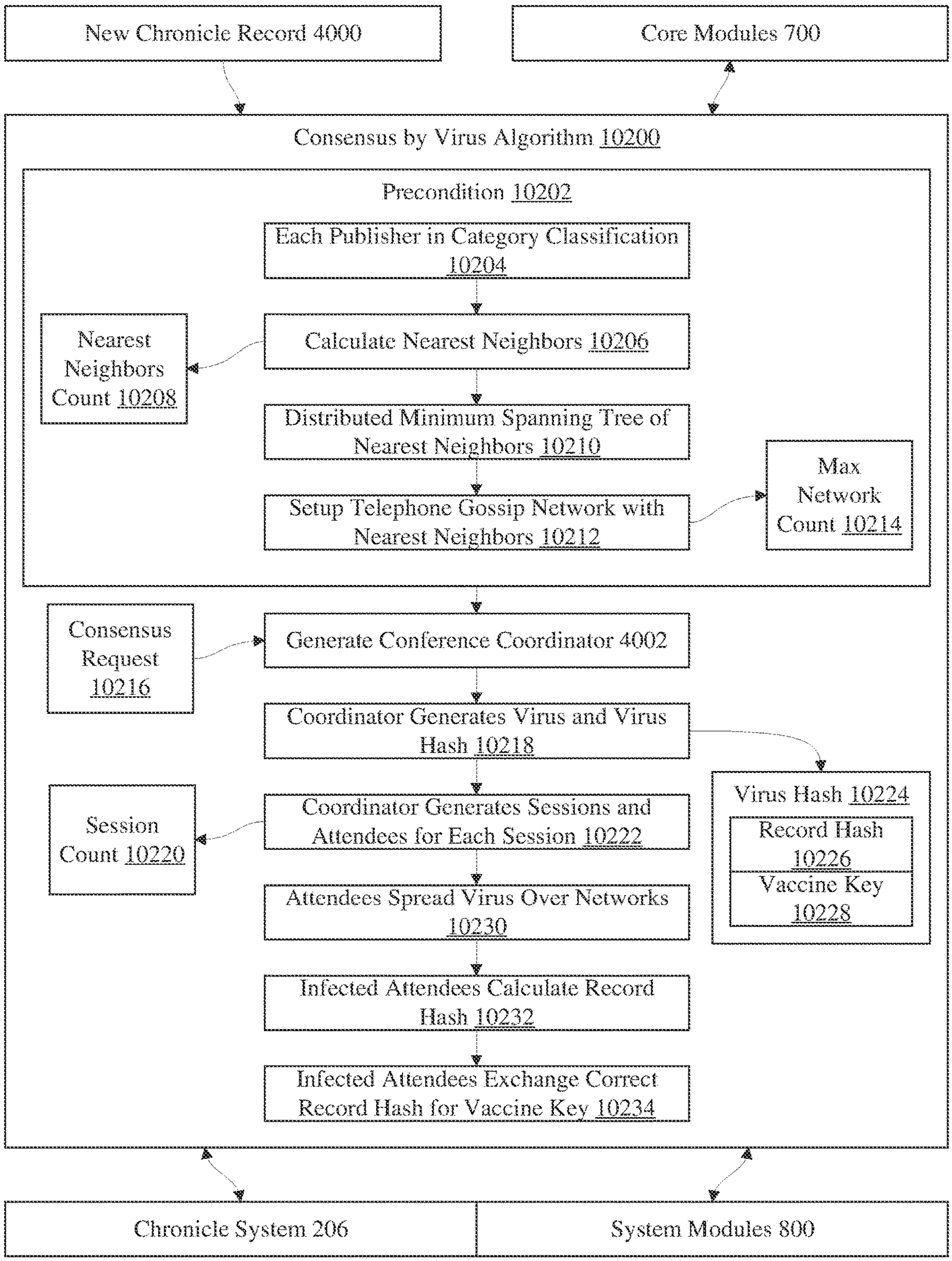

New Chronicle Record 4000
Core Modules 700
Consensus by Virus Algorithm 10200
Precondition 10202
Each Publisher in Category Classification 10204
Calculate Nearest Neighbors 10206
Nearest Neighbors Count 10208
Distributed Minimum Spanning Tree of Nearest Neighbors 10210
Setup Telephone Gossip Network with Nearest Neighbors 10212
Max Network Count 10214
Consensus Request 10216
Generate Conference Coordinator 4002
Coordinator Generates Virus and Virus Hash 10218
Virus Hash 10224
Record Hash 10226
Vaccine Key 10228
Session Count 10220
Coordinator Generates Sessions and Attendees for Each Session 10222
Attendees Spread Virus Over Networks 10230
Infected Attendees Calculate Record Hash 10232
Infected Attendees Exchange Correct Record Hash for Vaccine Key 10234
Chronicle System 206
System Modules 800

FIGURE 102

App Menu Items 8830

Ad App Menu Item 10302	Search App Menu Item 10340
AI App Menu Item 10304	Subscription App Menu Item 10342
Analytics App Menu Item 10306	Third Party App Menu Items 10344
Archive App Menu Item 10308	Wallet App Menu Item 10346
Audit App Menu Item 10310	Endorsement App Menu Item 10348
Chronicle App Menu Item 10312	Compliance App Menu Item 10350
Connection App Menu Item 10314	Consensus App Menu Item 10352
Content App Menu Item 10316	Notary App Menu Item 10354
Directory App Menu Item 10318	Certified Email App Menu Item 10356
Distribution App Menu Item 10320	Workflow App Menu Item 10358
Identity App Menu Item 10322	SDK App Menu Item 10360
Ledger App Menu Item 10324	Copyright App Menu Item 10362
Licensing App Menu Item 10326	Rhetoric App Menu Item 10364
Machine Learning App Menu Item 10328	User Verification App Menu Item 10366
Message Board App Menu Item 10330	Trending App Menu Item 10368
Onboarding App Menu Item 10332	Account App Menu Item 10370
Payment App Menu Item 10334	Content Verification App Menu Item 10372
Posting App Menu Item 10336	Index App Menu Item 10374
Publishing App Menu Item 10338	

FIGURE 103

System Menu Items 8832	
Ad System Menu Item 10402	Search System Menu Item 10440
AI System Menu Item 10404	Subscription System Menu Item 10442
Analytics System Menu Item 10406	Third Party System Menu Item 10444
Archive System Menu Item 10408	Wallet System Menu Item 10446
Audit System Menu Item 10410	Endorsement System Menu Item 10448
Chronicle System Menu Item 10412	Compliance System Menu Item 10450
Connection System Menu Item 10414	Consensus System Menu Item 10452
Content System Menu Item 10416	Notary System Menu Item 10454
Directory System Menu Item 1041104	Certified Email System Menu Item 10456
Distribution System Menu Item 10420	Workflow System Menu Item 10458
Identity System Menu Item 10422	SDK System Menu Item 10460
Ledger System Menu Item 10424	Copyright System Menu Item 10462
Licensing System Menu Item 10426	Rhetoric System Menu Item 10464
Machine Learning System Menu Item 10428	User Verification System Menu Item 10466
Message Board System Menu Item 10430	Trending System Menu Item 10468
Onboarding System Menu Item 10432	Account System Menu Item 10470
Payment System Menu Item 10434	Content Verification System Menu Item 10472
Posting System Menu Item 10436	Index System Menu Item 10474
Publishing System Menu Item 10438	

FIGURE 104

Platform System Menu Items 8834	
API Platform System Menu Item 10502	User Verification Platform System Menu Item 10530
Archive Platform System Menu Item 10504	Connection Platform System Menu Item 10532
Audit Platform System Menu Item 10506	Consensus Platform System Menu Item 10534
Chronicle Platform System Menu Item 10508	SDK Platform System Menu Item 10536
Directory Platform System Menu Item 10510	AI Platform System Menu Item 10538
Identity Platform System Menu Item 10512	Analytics Platform System Menu Item 10540
Ledger Platform System Menu Item 10514	Machine Learning Platform System Menu Item 10542
Onboarding Platform System Menu Item 10516	Trending Platform System Menu Item 10544
Payment Platform System Menu Item 10518	Endorsement Platform System Menu Item 10546
Platform Management System Menu Item 10520	Ad Platform System Menu Item 10548
Search Platform System Menu Item 10522	Content Verification Platform System Menu Item 10550
Third Party Platform System Menu Item 10524	Index Platform System Menu Item 10552
Account Platform System Menu Item 10526	Content Platform System Menu Item 10554
Telemetry Platform System Menu Item 10528	

FIGURE 105

SYSTEMS, METHODS AND MEDIA FOR A CHRONICLE BLOCKCHAIN AND CONSENSUS BY CONFERENCE PROOF OF STAKE PROTOCOL

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This continuation application claims the priority benefit of U.S. patent application Ser. No. 17/700,252 filed Mar. 21, 2022, titled "Systems, Methods and Media for a Distributed Social Media Network and System of Record," which claims the priority benefit of U.S. Pat. No. 11,283,857 issued Mar. 22, 2022, which in turn claims the priority benefit of U.S. Pat. No. 10,986,169 issued Apr. 20, 2021, which in turn claims the priority benefit of U.S. Provisional Application Ser. No. 62/660,118 filed on Apr. 19, 2018 all of which are hereby incorporated by reference in their entireties.

FIELD OF THE TECHNOLOGY

[0002] The present technology relates generally to distributed social media networks and systems of records.

SUMMARY OF THE PRESENT TECHNOLOGY

[0003] Provided herein are exemplary distributed architectures including a platform system communicatively coupled to a network, a social media system communicatively coupled to the network and configured for interaction by one or more users, and a social media application communicatively coupled to the network and configured for interaction by one or more users.

[0004] Further exemplary embodiments include a third party service communicatively coupled to the network, a public auditor communicatively coupled to the network, and a public archivist communicatively coupled to the network. The one or more users may include any of individuals, businesses, charities and non-profit organizations, and government organizations.

[0005] The social media system, in certain exemplary embodiments, may be communicatively coupled to system modules, the system modules communicatively coupled to platform modules and core modules, the platform modules and the core modules communicatively coupled to each other and to platform services, the platform services communicatively coupled to a social media system API, the social media system API communicatively coupled to the network, and the network communicatively coupled to the platform systems, the social media application, the third party service, the public auditor and the public archivist.

[0006] The distributed architecture may also include the platform system communicatively coupled to platform system modules, the platform system modules, communicatively coupled to system modules, platform modules, and core modules, the system modules, the platform modules and the core modules communicatively coupled to each other and to platform services, the platform services communicatively coupled to platform system APIs, the platform system APIs communicatively coupled to the network and the network communicatively coupled to the social media system, the social media application, the public archivist, the public auditor, and the third party service.

[0007] The distributed architecture, in further exemplary embodiments, may further comprise the social media application communicatively coupled to app modules, the app modules communicatively coupled to an App module client proxy and core modules, the core modules communicatively coupled to the App module client proxy, both the App module client proxy and core modules communicatively coupled to the network, and the network communicatively coupled to social media system APIs, platform system APIs, the public archivist, the public auditor, and the third party service.

[0008] Provided herein are also exemplary chronicle records including a record header, further comprising Id, version, timestamp, previous record hash, record nonce, record hash, record header graph and record signature, graphs, all of which descend from a base graph, the base graph further comprising base graph schema, base graph hash, base graph signature, base graph estimated work, base graph actual work, a graph collection further comprising a node and an edge, a hash algorithm further comprising a Merkle tree, object graph hash algorithm and a graph schema hash algorithm.

[0009] Exemplary chronicle records may further include a chronicle header further comprising Id, timestamp, chronicle nonce, chronicle header graph, version, previous chronicle hash, chronicle hash, chronicle header graph hash, a chain of chronicle records each comprising a chronicle record with a previous record hash and record hash linked to one or more other chronicle records, each chronicle record comprising a set of data for a specific predetermined period of time, one or more record hashes being associated with a previous record hash via a directional acyclic graph, one or more chronicle header graphs and one or more chronicle graph hashes providing traceability and visibility into what happened to data on its way to becoming immutable, the chronicle header being associated with a chronicle hash that is derived from different data being hashed, further comprising a chronicle being a construct that is highly scalable and allows for parallelism across a platform, with all chronicles being worked on simultaneously.

[0010] Also provided herein are a plurality of chronicles aggregated into annals, the annals further comprising an annals header including Id, timestamp, annals nonce, annals header graph, version, previous annals hash, annals hash, annals header graph hash, a chain of chronicles each comprising a previous chronicle hash and chronicle hash linked to one or more other chronicles, the annals comprising a set of data for a predetermined period of time, and further comprising one or more chronicle hashes being associated with a previous chronicle hash via a directional acyclic graph.

[0011] Further exemplary embodiments include a chronicle collection including a chronicle and annals, the chronicle including a plurality of chronicle records and the annals including a plurality of chronicles, platform system modules communicatively coupled to the chronicle collection, the platform system modules including chronicle platform system modules, a chronicle aggregation platform system module, a chronicle archive platform system module, a chronicle audit platform system module, chronicle management module, and platform systems including a chronicle system and system modules including chronicle system modules communicatively coupled to the platform system modules.

[0012] Exemplary methods for making a post on a distributed social media network include a user maintaining

ownership and control of content and associated metadata, the user posting a message and content stored on their own social media system, the user using a social media app to compose a post, including using a message board app module to create to create a post, the user using a connection app module to designate who the user is going to share the post with, before sending the post, the user using a signing core module to digitally sign the post, transmitting the post by a posting app module that sends the post to their own social media system via a network, ensuring by a compliance system module that the post conforms to a platform's compliance standards and rules, storing the post inside of the user's chronicle, using a system module to create a URI to data in the user's chronicle, encrypting and passing the user's chronicle to a distribution system module, so the post can be distributed to its designated recipients via the network, one or more users accessing the post on their respective social media apps aided by a message board app module, and the user optionally deleting the post at any time while maintaining control of the post and associated metadata in an external data center.

[0013] Also provided herein are exemplary methods for publishing on a distributed social media network, including a user selecting a publisher on a network, the user using a social media app to publish, the user using a message board app module to compose publishable content, the user signing the publishable content using a signing core module, the user paying any fees associated with publishing via a payment app module, the user sending via a publishing app module the publishable content to their own social media system via a network, processing the publishable content with a compliance system module, storing the publishable content as a new chronicle record, sending the new chronicle record to a publisher across the network to a publisher's social media system, upon receipt of payment via payment modules, notifying a workflow system module of pending content item being published for the user, upon the sending of the new chronicle record, either the entire chronicle record with all its bits, including every bit of content is transmitted, or an optimization is sent with URIs to content bits, determining whether the new chronicle record has content and if it does not, obtaining the content via a URI, upon receiving the content and verifying it by a workflow system module, verifying the content meets the publisher's compliance rules, accepting, rejecting or flagging by the workflow system module for next steps of workflow, applying data transformations to a content graph, including copyright, subject headings, subdivisions, classification or catalog, upon completing processing of the content, the new chronicle record is submitted to chronicle system modules, including a chronicle workflow system module for consensus by a consensus algorithm, upon completing the consensus, the new chronicle record is either accepted or rejected, if the new chronicle record is accepted, saving it to a chronicle system module, if the new chronicle record is rejected, sending a rejection notice to the user, upon saving the new chronicle record, sending the new chronicle record to a publishing system module for a final check, sending the new chronicle record to a distribution module and placing it in a distribution event grid module, and distributing the new chronicle record over a network with the distribution event module.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The accompanying drawings, where like reference numerals refer to identical or functionally similar elements throughout the separate views, together with the detailed description below, are incorporated in and form part of the specification, and serve to further illustrate embodiments of concepts that include the claimed disclosure, and explain various principles and advantages of those embodiments.

[0015] The methods and systems disclosed herein have been represented where appropriate by conventional symbols in the drawings, showing only those specific details that are pertinent to understanding the embodiments of the present disclosure so as not to obscure the disclosure with details that will be readily apparent to those of ordinary skill in the art having the benefit of the description herein.

[0016] FIG. **1** is a block diagram of Distributed Architecture.

[0017] FIG. **2** is a block diagram of Platform Systems.

[0018] FIG. **3** is a block diagram of A Distributed Social Media Network.

[0019] FIG. **4** is a use case diagram that illustrates individuals and entities as they relate to users of A Distributed Social Media Network.

[0020] FIG. **5** is a block diagram of Platform Services.

[0021] FIG. **6** is a block diagram of Platform Modules.

[0022] FIG. **7** is a block diagram of Core Modules.

[0023] FIG. **8** is a block diagram of System Modules.

[0024] FIG. **9** is a block diagram of Social Media System Layers.

[0025] FIG. **10** is a block diagram which illustrates one possible Social Media System.

[0026] FIG. **11** is a block diagram which illustrates another possible Social Media System.

[0027] FIG. **12** is a block diagram of an App Module.

[0028] FIG. **13** is a block diagram of App Modules.

[0029] FIG. **14** is a block diagram which illustrates one possible Social Media App(s).

[0030] FIG. **15** is a block diagram which illustrates another possible Social Media App(s).

[0031] FIG. **16** is a block diagram of Platform System Modules.

[0032] FIG. **17** is a block diagram of Platform System Layers.

[0033] FIG. **18** is a block diagram of Social Media App Layers.

[0034] FIG. **19** is a block diagram of Platform Management System Modules.

[0035] FIG. **20** is a block diagram of a Chronicle Record.

[0036] FIG. **21** is a block diagram of a Chronicle.

[0037] FIG. **22** is a block diagram of Annals.

[0038] FIG. **23** is a block diagram of Chronicle Platform System Modules.

[0039] FIG. **24** is a block diagram of Chronicle System Modules.

[0040] FIG. **25** is a block diagram of a Chronicle Record.

[0041] FIG. **26** is a block diagram of a Chronicle Record.

[0042] FIG. **27** is a block diagram of Directory Platform System Modules.

[0043] FIG. **28** is a block diagram of Directory System Modules.

[0044] FIG. **29** is a block diagram of a Chronicle Record.

[0045] FIG. **30** is a block diagram of Account Platform System Modules.

[0046] FIG. **31** is a block diagram of Distribution System Modules.
[0047] FIG. **32** is a block diagram of Search System Modules.
[0048] FIG. **33** is a block diagram of Connection System Modules.
[0049] FIG. **34** is a block diagram that illustrates how a Post is made.
[0050] FIG. **35** is a use case diagram of Publishers.
[0051] FIG. **36** is a block diagram of Platform Tenets.
[0052] FIG. **37** is a block diagram of Publishable Content Types.
[0053] FIG. **38** is a block diagram of Consensus by Conference.
[0054] FIG. **39** is a block diagram of a Chronicle Record.
[0055] FIG. **40** is a block diagram detailing the workflow for Generate Conference Coordinator.
[0056] FIG. **41** is a block diagram detailing the workflow for Generate Conference Attendees.
[0057] FIG. **42** is a block diagram of Consensus by Conference Algorithm.
[0058] FIG. **43** is a block diagram of a Chronicle Workflow System Module.
[0059] FIG. **44** is a block diagram which illustrates how a user can Publish.
[0060] FIG. **45** is a block diagram of Connections and Groups.
[0061] FIG. **46** is a block diagram of Identity.
[0062] FIG. **47** is a block diagram of Data Analysis.
[0063] FIG. **48** is a block diagram of Trending.
[0064] FIG. **49** is a block diagram of Audit and Archive.
[0065] FIG. **50** is a block diagram of a Chronicle Record.
[0066] FIG. **51** is a block diagram of a Certified Email.
[0067] FIG. **52** is a block diagram of a Chronicle Record.
[0068] FIG. **53** is a block diagram of a Notary Email.
[0069] FIG. **54** is a block diagram of a Chronicle Record.
[0070] FIG. **55** is a block diagram of Rhetoric System Modules.
[0071] FIG. **56** is a block diagram of Rhetoric.
[0072] FIG. **57** is a block diagram of a Chronicle Record.
[0073] FIG. **58** is a block diagram of Subscription System Modules.
[0074] FIG. **59** is a block diagram of Subscription.
[0075] FIG. **60** is a block diagram of a Chronicle Record.
[0076] FIG. **61** is a block diagram of Connection System Modules.
[0077] FIG. **62** is a block diagram of Connection.
[0078] FIG. **63** is a block diagram of a Chronicle Record.
[0079] FIG. **64** is a block diagram of the properties of an Ad Campaign.
[0080] FIG. **65** is a block diagram of Ad Algorithms.
[0081] FIG. **66** is a block diagram of Ad System Modules.
[0082] FIG. **67** is a block diagram of an Ad.
[0083] FIG. **68** is a block diagram of an Ad Purchase.
[0084] FIG. **69** is a block diagram of Ad Distribution.
[0085] FIG. **70** is a block diagram of a Chronicle Collection.
[0086] FIG. **71** is a block diagram of a Chronicle Record.
[0087] FIG. **72** is a block diagram of a Chronicle Record.
[0088] FIG. **73** is a block diagram of User Verification Algorithms.
[0089] FIG. **74** is a block diagram of User Verification System Modules.
[0090] FIG. **75** is a block diagram of User Verification.
[0091] FIG. **76** is a block diagram of a Chronicle Record.
[0092] FIG. **77** is a block diagram that illustrates Trending System Modules.
[0093] FIG. **78** is a block diagram of a Trending Billboard.
[0094] FIG. **79** is a block diagram of a Chronicle Record.
[0095] FIG. **80** is a block diagram of Endorsement System Modules.
[0096] FIG. **81** is a block diagram of an Endorsement.
[0097] FIG. **82** is a block diagram of a Certified Business Email.
[0098] FIG. **83** is a block diagram of a Chronicle Record.
[0099] FIG. **84** is a block diagram of a Chronicle Record.
[0100] FIG. **85** is a block diagram of Content Verification Algorithms.
[0101] FIG. **86** is a block diagram of Content Verification System Modules.
[0102] FIG. **87** is a block diagram of Content Verification.
[0103] FIG. **88** is a block diagram of a Message Board.
[0104] FIG. **89** illustrates the Publish Message.
[0105] FIG. **90** illustrates the Publish Message Smart Contracts.
[0106] FIG. **91** illustrates the Post Message.
[0107] FIG. **92** illustrates the Ad Content Display.
[0108] FIG. **93** is a block diagram of Social Media App(s).
[0109] FIG. **94** is a block diagram of a Chronicle Record.
[0110] FIG. **95** is a block diagram of a Chronicle Record.
[0111] FIG. **96** is a block diagram of Index Algorithms.
[0112] FIG. **97** is a block diagram of Index System Modules.
[0113] FIG. **98** is a block diagram of an Index.
[0114] FIG. **99** is a block diagram of a Chronicle Record.
[0115] FIG. **100** is a block diagram of Search System Modules.
[0116] FIG. **101** is a block diagram of Search.
[0117] FIG. **102** is a block diagram of Consensus by Virus Algorithm.
[0118] FIG. **103** is a block diagram of App Menu Items.
[0119] FIG. **104** is a block diagram of System Menu Items.
[0120] FIG. **105** is a block diagram of Platform System Menu Items.

INTRODUCTION

[0121] Social media today is highly centralized, controlled by a few huge companies whose primary objective is profit. Their heavy dependence on algorithms and big data to appease shareholder demands as well as their size and market dominance have led to some serious negative consequences. Users have lost privacy and control because they are the product. A small number of biased gatekeepers now decide which ideas and opinions are seen and shared. And bad actors are weaponizing these networks at scale.
[0122] Furthermore, users on existing platforms create almost all the content without compensation, while the social media companies capture all the economic value from that content through advertising sales. The news business especially is suffering—not because people don't want news, but because the money generated by online news audiences flows mostly to companies like Facebook, instead of publishers who are at a huge technological disadvantage.
[0123] Various embodiments of the present technology utilize a distributed architecture to return social media, including news and content distribution, to the original idea of the internet: a very decentralized and egalitarian system that levels the playing field and balances profit with social

good. Furthermore, the platform is highly scalable with multi-dimensional parallelism and inherent sharding.

[0124] Users can post content to their connections. Posted content can be deleted at any time because users maintain total ownership and control. This type of sharing is private. Users can also publish content to a permanent public record. Published content can be edited, corrected, retracted or recanted, but never deleted. It is vetted by publishers, audited by auditors, and held in the public trust by archivists outside of the network. This type of sharing is public.

[0125] Various embodiments of the present technology also utilize a unique system of record which leverages the foundational technologies of hashes, Merkle trees and blockchain to bring integrity and civility back to social media networking. There are no bots or fake accounts because every user is known and verified. There is no censorship or shadow banning because the distributed network is user directed and filtered. There is no fake news or shit posting because the distributed network maintains a traceable, immutable, permanent public record of all published workflows and content using blockchain. There is no fraud because the distributed network facilitates and verifies all transactions for data integrity and message authenticity using hashing functions and consensus.

[0126] The surface area of any potential attack by bad actors is greatly diminished with the distributed architecture. Profit for few becomes profit for many as publishers and content creators are paid for their content, advertising dollars are distributed across a wide range of media properties, and no one intermediary controls the user or the data. Privacy and control are restored as all users are now the authority over their own data as well as what is seen, shared, and monetized on their own social media network.

DETAILED DESCRIPTION

[0127] FIG. **1** is a block diagram of Distributed Architecture **100** whereby User **104** integrates with Social Media System **106**, Social Media App(s) **110** and Platform Systems **102** via Network(s) **108**. What makes this architecture unique is that User **104** has their own Social Media System **106** and their own Social Media App(s) **110**. In one embodiment of the invention where User **104** is a business, User **104** might have many Social Media App(s) **110** pointing to their own Social Media System **106**. In another embodiment of the invention where User **104** is an individual, User **104** might have an iOS application as their Social Media App(s) **110** and their own Social Media System **106**.

[0128] By comparison, all existing social media platforms have centralized architectures. (See reference article, "On Distributed Communications Networks" by Paul Baran, published September 1962, for illustration of differences between centralized and distributed networks.) Users of centralized social media networks such as Facebook or Twitter are essentially interacting with a single, monolithic social media system for that specific business. Data is being transferred to and from centralized data centers that users do not own or control. These central authorities use algorithms and big data to determine what is seen and shared based on what will generate them the most profit.

[0129] With Distributed Architecture **100**, User **104** has total authority over their own data as well as what is seen, shared and monetized on their own social media network. Furthermore, the platform is highly scalable, with multi-dimensional parallelism and inherent sharding, as well as a significantly reduced surface area for attacks.

[0130] FIG. **2** is a block diagram of Platform Systems **102** which is comprised of API System **200**, Archive System **202**, Audit System **204**, Chronicle System **206**, Directory System **208**, Identity System **210**, Ledger System **212**, Onboarding System **214**, Payment System **216**, Platform Management System **218**, Search System **220**, Third Party Systems **222**, Account System **224**, Telemetry System **226**, User Verification System **228**, Connection System **230**, Consensus System **232**, SDK System **234**, AI System **236**, Analytics System **238**, Machine Learning System **240**, Trending System **244**, Endorsement System **246**, Ad System **248**, Content Verification System **250**, Index System **252**. All of these sub-systems affect the entire platform and are cross-cutting in their impact on both Social Media System **106** and Social Media App(s) **110** introduced in FIG. **1**.

[0131] API System **200** manages APIs for the platform. Archive System **202** manages archiving for the platform. Audit System **204** manages auditing for the platform. Chronicle System **206** manages chronicles for the platform. Directory System **208** manages the directory for the platform. Identity System **210** manages identity for the platform. Ledger System **212** manages ledgers for the platform. Onboarding System **214** manages onboarding for the platform. Payment System **216** manages payments for the platform. Platform Management System **218** is the main system that manages and integrates with all other platform systems on the platform. It composes, deploys, configures, updates, and decommissions Social Media System **106** and Social Media App(s) **110** in FIG. **1** which are both dynamically created to deliver a unique set of features and functionality for User **104** based on user type and requirements.

[0132] Search System **220** manages search for the platform. Third Party Systems **222** manages third parties for the platform. Account System **224** manages accounts for the platform. Telemetry System **226** manages telemetry for the platform. User Verification System **228** manages user verification for the platform. Connection System **230** manages connections for the platform. Consensus System **232** manages consensus for the platform. SDK System **234** manages software development kits for the platform. AI System **236** manages AI for the platform. Analytics System **238** manages analytics for the platform. Machine Learning System **240** manages machine learning for the platform. Trending System **244** manages trending for the platform. Endorsement System **246** manages endorsements for the platform. Ad System **248** manages ads for the platform. Content Verification System **250** manages content verification for the platform. Index System **252** manages indexing for the platform.

[0133] FIG. **3** is a block diagram of Distributed Social Media Network **300** which further illustrates that every User **104** has their own social media system and their own social media app in Distributed Architecture **100** detailed in FIG. **1**. User **104-1** has Social Media System **106-1** and Social Media App(s) **110-1**. User **104-2** has Social Media System **106-2** and Social Media App(s) **110-2**. User **104**-N has Social Media System **106**-N and Social Media App(s) **110**-N. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N

number of social media app(s) for every user on the network. Platform Systems **102** services all social media systems and all social media apps across Network(s) **108**. All of the sub-systems available in Platform Systems **102** are available to all social media systems and all social media apps across Network(s) **108**. Third Party Services **112** represents third party services available to Platform Systems **102** as well as all social media systems and all social media apps across Network(s) **108**. Public Auditors **114** provides auditing services for the platform and interact with Platform Systems **102** as well as all social media systems and all social media apps across Network(s) **108**. Public Archivists **116** provides archiving services in the public domain outside of the platform and interact with Platform Systems **102** as well as all social media systems and all social media apps across Network(s) **108**.

[0134] FIG. **4** is a use case diagram that illustrates individuals and entities as they relate to users of Distributed Social Media Network **300** in FIG. **3**. It further defines User **104** in FIG. **1** and utilizes the classification system of the United States Internal Revenue Service. In another embodiment of the invention, other classification systems could be used to define User **104**. Here User **104** is comprised of Individuals **402** which may be users of Distributed Social Media Network **300** in FIG. **3**, and in the case of the IRS classification, are defined as U.S. citizens or residents. Individuals **402** may also have associations with Businesses **404**, Charities & Non-Profits **412**, and Government **424**. Businesses **404** may be users of Distributed Social Media Network **300** in FIG. **3** and include Self Employed **406**, Small Businesses **410**, and Corporations **408**. Charities & Non-Profits **412** may be users of Distributed Social Media Network **300** in FIG. **3** and are comprised of Charitable Organizations **414**, Churches & Religious Organizations **416**, Political Organizations **418**, Private Foundations **420**, and Other Non-Profits **422**. Government **424** may be users of Distributed Social Media Network **300** in FIG. **3** and are comprised of Federal **426**, State **428**, Local **430**, and Indian Tribal **432**.

[0135] In one embodiment of the invention, user accounts will be created by Distributed Social Media Network **300** in FIG. **3** for elected and appointed government positions at all levels of Government **424**, specifically Federal **426**, State **428**, Local **430**, and Indian Tribal **432**. Access will be given to each elected or appointed Individual **402**, or their designated appointees, for official government use during their term or appointment. These user accounts are not owned by Individual **402** and are in no way associated to their personal user account. In another embodiment of the invention, user accounts are created for elected and appointed government positions by FIG. **1**, Platform Systems **102**. In another embodiment of the invention, user accounts are created for elected and appointed government positions by FIG. **1**, Social Media System **106**.

[0136] FIG. **5** is a block diagram of Platform Services **500** which is comprised of IaaS and PaaS **502**. Infrastructure as a Service (IaaS) and Platform as a Service (PaaS) are used to describe basic cloud computing constructs that include cloud platforms such as Microsoft Azure or AWS Cloud Services. The entire platform is built on top of these foundational services which sit on servers interconnected on networks and all the individual servers comprised of operating systems, memory, and CPU. IaaS and PaaS **502** is comprised of Networking **504**, Compute **518**, Management **530**, Storage **542**, Security **558**, and Integration **566**. Networking **504** consists of DNS **506**, Firewall **508**, Virtual Network **510**, Load Balancer **512**, Content Delivery Network **514**, and VPN **516**. Compute **518** consists of Virtual Machines **520**, API Servers **522**, Containers **524**, Functions **526**, and Jobs **528**. Management **530** consists of Monitoring **531**, Telemetry **532**, Diagnosis **534**, Backup **536**, Analytics **538**, AI **539**, and Machine Learning **540**. Storage **542** consists of Blob **544**, Disk **546**, Queue **548**, Table **550**, SQL Database **552**, Document Database **554**, and Cache **556**. Security **558** consists of Directory Services **560**, Two-Factor Authentication **562**, and Key Vault **564**. Integration **566** consists of Service Bus **568**, Event Hubs **570**, Catalog **572**, Notification **574**, Third Party APIs **576**, and API Management **578**.

[0137] FIG. **6** is a block diagram of Platform Modules **600** which is comprised of Compute Module **602**, Integration Module **604**, Management Module **606**, Networking Module **608**, Security Module **610**, and Storage Module **612**. Each of these modules represents the high-level cross-cutting programming and configuration needed to manage all of the corresponding services of Platform Services **500** in FIG. **5**. Compute Module **602** represents all of the programming and configuration needed to manage Compute **518** in FIG. **5**. Integration Module **604** represents all the programming and configuration needed to manage Integration **566** in FIG. **5**. Management Module **606** represents all the programming and configuration needed to manage Management **530** in FIG. **5**. Networking Module **608** represents all the programming and configuration needed to manage Networking **504** in FIG. **5**. Security Module **610** represents all the programming and configuration needed to manage Security **558** in FIG. **5**. Storage Module **612** represents all the programming and configuration need to manage Storage **542** in FIG. **5**.

[0138] FIG. **7** is a block diagram of Core Modules **700** which is comprised of Exception Handling Core Module **702**, Extensions Core Module **704**, Cryptography Core Module **706**, Identity Core Module **708**, Logging Core Module **710**, Merkle Tree Core Module **712**, Telemetry Core Module **714**, Utilities Core Module **716**, Validation Core Module **718**, Consensus Core Module **720**, and Signing Core Module **722**. Core Modules **700** interacts with Platform Systems **102** and Platform Modules **600**.

[0139] Core Modules **700** provides all the cross-cutting functionality for Platform Systems **102** and Platform Modules **600**, including but not limited to exception handling, cryptography, identity, logging, telemetry, validation, consensus, and signing. Every Social Media System **106** and every Social Media App(s) **110** on Distributed Social Media Network **300** in FIG. **3** requires these cross-cutting features in terms of application logic, configuration and storage. This low-level code also manages all of the Platform Services **500** in FIG. **5**, specifically Networking **504**, Compute **518**, Management **530**, Storage **542**, Security **558** and Integration **566**.

[0140] Exception Handling Core Module **702** captures exception handling and works with the other modules in Platform Modules **600** to ensure exceptions are logged and put into a process to be mitigated. Extensions Core Module **704** represents extensions to core functionality so that there is reuse across the systems and applications. Cryptography Core Module **706** represents cryptography programming, ciphers, and hashing algorithms that are leveraged by both

the systems and applications. Identity Core Module **708** manages core identity functions that are used by both the systems and applications. Logging Core Module **710** provides the ability to log debug, error and critical information in the system and application layers. Merkle Tree Core Module **712** enables the ability to work with Merkle trees across the systems and applications. Telemetry Core Module **714** collects telemetry data in both the system and application layers. Utilities Core Module **716** provides utility functionality, programming, and configurations that can be used across both the systems and applications. Validation Core Module **718** provides validation functionality and configurations that can be applied in the system and application layers. Consensus Core Module **720** manages consensus across the systems and applications. Signing Core Module **722** manages signing in the system and application layers.

[0141] FIG. **8** is a block diagram of System Modules **800** which is comprised of Ad System Modules **802**, AI System Modules **804**, Analytics System Modules **806**, Archive System Modules **808**, Audit System Modules **810**, Chronicle System Modules **812**, Connection System Modules **814**, Content System Modules **816**, Directory System Modules **818**, Distribution System Modules **820**, Identity System Modules **822**, Ledger System Modules **824**, Licensing System Modules **826**, Machine Learning System Modules **828**, Message Board System Modules **830**, Onboarding System Modules **832**, Payment System Modules **834**, Posting System Modules **836**, Publishing System Modules **838**, Search System Modules **840**, Subscription System Modules **842**, Third Party System Modules **844**, Wallet System Modules **846**, Endorsement System Modules **848**, Compliance System Modules **850**, Consensus System Modules **852**, Notary System Modules **854**, Certified Email System Modules **856**, Workflow System Modules **858**, SDK System Modules **860**, Copyright System Modules **862**, Rhetoric System Modules **864**, User Verification System Modules **866**, Trending System Modules **868**, Account System Modules **870**, Content Verification System Modules **872**, and Index System Modules **874**. System Modules **800** interacts with Core Modules **700** which provides all the cross-cutting functionality for System Modules **800**.

[0142] Each of these system modules represents the high-level cross-cutting programming and configuration needed to manage all of the corresponding services of Social Media System **106** in FIG. **1**. Social Media System **106-1** to **106**-N on Distributed Social Media Network **300** in FIG. **3** is comprised of one or more or all of these system modules depending on user type and requirements. While generally intended for the system layer, these system modules could also be used by Platform Systems **102** in FIG. **1** across the entire platform or by Social Media App(s) **110** in FIG. **1** in the application layer. These system modules can work alone or be combined. They are combined by either compilation or as separate systems by networks or by sitting in the same operating system and communicating via API or SDK.

[0143] Ad System Modules **802** provides the system modules for managing the advertising features and functionality of the platform. AI System Modules **804** provides the system modules for managing the AI features and functionality of the platform. Analytics System Modules **806** provides the system modules for managing the analytics features and functionality of the platform. Archive System Modules **808** provides the system modules for managing the archiving features and functionality of the platform. Audit System Modules **810** provides the system modules for managing the auditing features and functionality of the system. Chronicle System Modules **812** provides the system modules for managing the chronicle features and functionality of the platform. Connection System Modules **814** provides the system modules for managing the connection features and functionality of the platform. Content System Modules **816** provides the system modules for managing the content features and functionality of the platform. Directory System Modules **818** provides the system modules for managing the directory features and functionality of the platform. Distribution System Modules **820** provides the system modules for managing the distribution of posted and published content across Distributed Social Media Network **300** in FIG. **3**. Identity System Modules **822** provides the system modules for managing the identity features and functionality of the platform. Ledger System Modules **824** provides the system modules for managing the ledger features and functionality of the platform. Licensing System Modules **826** provides the system modules for managing the licensing features and functionality of the platform. Machine Learning System Modules **828** provides the system modules for managing the machine learning features and functionality of the platform. Message Board System Modules **830** provides the system modules for managing the message board features and functionality of the platform. Onboarding System Modules **832** provides the system modules for managing the onboarding features and functionality of the platform. Payment System Modules **834** provides the system modules for managing the payment features and functionality of the platform. Posting System Modules **836** provides the system modules for managing the posting features and functionality of the platform.

[0144] Publishing System Modules **838** provides the system modules for managing the publishing features and functionality of the platform. Search System Modules **840** provides the system modules for managing the search features and functionality of the platform. Subscription System Modules **842** provides the system modules for managing the subscription features and functionality of the platform. Third Party System Modules **844** provides the system modules for managing the third-party features and functionality of the platform. Wallet System Modules **846** provides the system modules for managing the wallet features and functionality of the platform. Endorsement System Modules **848** provides the system modules for managing the endorsement features and functionality of the platform. Compliance System Modules **850** provides the system modules for managing the compliance features and functionality of the platform. Consensus System Modules **852** provides the system modules for managing the consensus features and functionality of the platform. Notary System Modules **854** provides the system modules for managing the notary features and functionality of the platform. Certified Email System Modules **856** provides the system modules for managing the certified email features and functionality of the platform. Workflow System Modules **858** provides the system modules for managing the workflow features and functionality of the platform. SDK System Modules **860** provides the system modules for managing software development kits to build additional features and functionality on the platform. Copyright System Modules **862** provides the system modules for managing the copyright features and functionality of the platform. Rhetoric System Modules **864** provides the system modules

for managing the rhetoric features and functionality of the platform. User Verification System Modules **865** provides the system modules for managing the user verification features and functionality of the platform. Trending System Modules **868** provides the system modules for managing the trending features and functionality of the platform. Account System Modules **870** provides the system modules for managing the accounting features and functionality of the platform. Content Verification System Modules **872** provides the system modules for managing the content verification features and functionality of the platform. Index System Modules **874** provides the system modules for managing the index features and functionality of the platform.

[0145] FIG. **9** is a block diagram of Social Media System Layers **900** which is comprised of Social Media System **106** which is integrated with System Modules **800**. System Modules **800** is integrated with Platform Modules **600**, Core Modules **700**, and Platform Services **500**. Platform Modules **600** is integrated with Core Modules **700** and Platform Services **500**. Core Modules **700** is integrated with Platform Modules **600** and Platform Services **500**. Platform Services **500** is integrated with Network(s) **108** via Social Media System APIs **902**, which are the sum composite of all the application programming interfaces that are exposed by Social Media System **106**. Social Media Systems **106** interfaces with Platform Systems **102**, Social Media App(s) **110**, Third Party Services **112**, Public Auditors **114**, and Public Archivists **116** across Network(s) **108**. This diagram illustrates the constituent foundational layering of Social Media System **106** that is derived vis a vie System Modules **800** in their relationship with Platform Modules **600**, Core Modules **700**, and Platform Services **500** and as well as the interaction across Network(s) **108** with Platform Systems **102**, Social Media App(s) **110**, Third Party Services **112**, Public Auditors, **114** and Public Archivists **116**. In short, one sees the N-tiered architecture from the point of view of System Modules **800** in FIG. **8**.

[0146] FIG. **10** is a block diagram which illustrates one possible Social Media System **106** for User **104** in FIG. **1** who is Business **404** in FIG. **4**. It is comprised of System Modules **800** which consists of Chronicle System Modules **812**, Posting System Modules **836**, Publishing System Modules **838**, Subscription System Modules **842**, Distribution System Modules **820**, Ad System Modules **802**, Content System Modules **816**, Connection System Modules **814**, Payment System Modules **834**, Licensing System Modules **826**, Analytics System Modules **806**, and Onboarding System Modules **832**. This collection of twelve system modules is a subset of the total possible system modules dynamically created and delivered by Platform Management System **218** in FIG. **2** based on user type and requirements. System Modules **800** interfaces with Platform Modules **600**, Core Modules **700** and Platform Services **500**. Platform Modules **600** interfaces with Core Modules **700** and Platform Services **500**. Core Modules **700** interfaces with Platform Modules **600** and Platform Services **500**. Social Media System APIs **1002** represents all the application programming interfaces for interfacing with System Modules **800**, Platform Modules **600**, Core Modules **700** and any of the specific system modules. All of these comprise the sum total application programming interfaces for this specific version of Social Media System **106**. Platform Services **500** is integrated with Network(s) **108** via Social Media System APIs **1002**.

[0147] FIG. **11** is a block diagram which illustrates another possible Social Media System **106** for a User **104** in FIG. **1** who is Individual **402** in FIG. **4**. It is comprised of System Modules **800** which consists of Chronicle System Modules **812**, Posting System Modules **836**, Subscription System Modules **842**, Distribution System Modules **820**, Content System Modules **816**, Connection System Modules **814**, Wallet System Modules **846**, Licensing System Modules **826**, Analytics System Modules **806**, and AI System Modules **804**. This collection of ten system modules is a subset of the total possible system modules dynamically created and delivered by Platform Management System **218** in FIG. **2** based on user type and requirements. System Modules **800** interfaces with Platform Modules **600**, Core Modules **700** and Platform Services **500**. Platform Modules **600** interfaces with Core Modules **700** and Platform Services **500**. Core Modules **700** interfaces with Platform Modules **600** and Platform Services **500**. Social Media System APIs **1102** represents all the application programming interfaces for interfacing with System Modules **800**, Platform Modules **600**, Core Modules **700** and any of the specific system modules. All of these comprise the sum total application programming interfaces for this specific version of Social Media System **106**. Platform Services **500** is integrated with Network(s) **108** via Social Media System APIs **1102**.

[0148] FIG. **12** is a block diagram of App Module **1200** which is comprised of View **1202**, View Model **1204** and Model **1206**. View **1202** is the UI and also comprised of Smart Contract View Elements and Logic **1224**. View **1202** interfaces with View Model **1204** which is also comprised of Smart Contract Presentation Logic **1222**. View **1202** and View Model **1204** interact via Notifications **1210**, DataBinding **1216**, and Commands **1218**. View Model **1204** integrates with Model **1206** by Notifications **1208**, Read **1212**, and Update **1214**. Model **1206** is also comprised of Smart Contract Business Logic **1220**. Client Proxy **1226** represents the application's integration into Network(s) **108**. This diagram introduces the concept of an app module, which is designed to be an application whether an iOS or Android app downloaded from an app store or a thick client for Mac OS, Linux or Windows. It represents user interfaces that provide a certain set of features and functionality for users and exemplifies a typical MVVM (Model, View, View Model) software development pattern for UI design.

[0149] FIG. **13** is a block diagram of App Modules **1300** which is comprised of Ad App Module **1302**, AI App Module **1304**, Analytics App Module **1306**, Archive App Module **1308**, Audit App Module **1310**, Chronicle App Module **1312**, Connection App Module **1314**, Content App Module **1316**, Directory App Module **1318**, Distribution App Module **1320**, Identity App Module **1322**, Ledger App Module **1324**, Licensing App Module **1326**, Machine Learning App Module **1328**, Message Board App Module **1330**, Onboarding App Module **1332**, Payment App Module **1334**, Posting App Module **1336**, Publishing App Module **1338**, Search App Module **1340**, Subscription App Module **1342**, Third Party App Modules **1344**, Wallet App Module **1346**, Endorsement App Module **1348**, Compliance App Module **1350**, Consensus App Module **1352**, Notary App Module **1354**, Certified Email Module **1356**, Workflow App Module

1358, SDK App Module **1360**, Copyright App Module **1362**, Rhetoric App Module **1364**, User Verification App Module **1366**, Trending App Module **1368**, Account App Module **1370**, and Content Verification App Module **1372**, and Index App Module **1374**. App Modules **1300** interacts with Core Modules **700** which provides all the cross-cutting functionality for App Modules **1300**.

[0150] Each of these app modules represents the high-level cross-cutting programming and configuration needed to manage all of the corresponding services of Social Media App(s) **110** in FIG. **1**. Social Media App(s) **110-1** to **110**-N on Distributed Social Media Network **300** in FIG. **3** are comprised of one or more or all of these app modules depending on user type and requirements. While generally intended for the application layer, these app modules could also be used by Platform Systems **102** in FIG. **1** across the entire platform or by Social Media System **106** in FIG. **1** in the system layer. These app modules can work alone or be combined. They also represent the programming and configuration necessary to integrate with Social Media System **106** and Platform Systems **102** in FIG. **1** on the application side.

[0151] Ad App Module **1302** manages the advertising features and functionality of the app(s). AI App Module **1304** manages the AI features and functionality of the app(s). Analytics App Module **1306** manages the analytics features and functionality of the app(s). Archive App Module **1308** manages the archive features and functionality of the app(s). Audit App Module **1310** manages the audit features and functionality of the app(s). Chronicle App Module **1312** manages the chronicle features and functionality of the app(s). Connection App Module **1314** manages the connection features and functionality of the app(s). Content App Module **1316** manages the content features and functionality of the app(s). Directory App Module **1318** manages the directory features and functionality of the app(s). Distribution App Module **1320** manages the distribution features and functionality of the app(s). Identity App Module **1322** manages the identity features and functionality of the app(s). Ledger App Module **1324** manages the ledger features and functionality of the app(s). Licensing App Module **1326** manages the licensing features and functionality of the app(s). Machine Learning App Module **1328** manages the machine learning features and functionality of the app(s). Message Board App Module **1330** manages the message board features and functionality of the app(s). Onboarding App Module **1332** manages the onboarding features and functionality of the app(s). Payment App Module **1334** manages the payment features and functionality of the app(s). Posting App Module **1336** manages the posting features and functionality of the app(s).

[0152] Publishing App Module **1338** manages the publishing features and functionality of the app(s). Search App Module **1340** manages the search features and functionality of the app(s). Subscription App Module **1342** manages the subscription features and functionality of the app(s). Third Party App Modules **1344** manages the third-party features and functionality of the app(s). Wallet App Module **1346** manages the wallet features and functionality of the app(s). Endorsement App Module **1348** manages the endorsement features and functionality of the app(s). Compliance App Module **1350** manages the compliance features and functionality of the app(s). Consensus App Module **1352** manages the consensus features and functionality of the app(s). Notary App Module **1354** manages the notary features and functionality of the app(s). Certified Email App Module **1356** manages the certified email features and functionality of the app(s). Workflow App Module **1358** manages the workflow features and functionality of the app(s). SDK App Module **1360** manages the software development kit features and functionality of the app(s). Copyright App Module **1362** manages the copyright features and functionality of the app(s). Rhetoric App Module **1364** manages the rhetoric features and functionality of the app(s). User Verification App Module **1366** manages the user verification features and functionality of the app(s). Trending App Module **1368** manages the trending features and functionality of the app(s). Account App Module **1370** manages the accounting features and functionality of the app(s). Content Verification App Module **1372** manages the content verification features and functionality of the app(s). Index App Modules **1374** manages the index features and functionality of the app(s).

[0153] FIG. **14** is a block diagram which illustrates one possible Social Media App(s) **110** for User **104** in FIG. **1** who is Business **404** in FIG. **4**. In this embodiment of the invention, Social Media App(s) **110** utilizes Runtime **1400** such as the Java virtual machine (JVM) or .Net Framework Common Language Runtime (CLR). Runtime **1400** is comprised of App Module Manager **1402** which has App Module Factory **1404** which can create N number of app modules (one, more, or all) represented in this case by App Module **1406-1**, App Module **1406-2**, and App Module **1406**-N. App Module Manager **1402** via App Module Factory **1404** can create and run one or more or all of App Modules **1300** dynamically. Runtime **1400** is also comprised of App Module View **1408**, App Module Controller **1410**, and App Module Model **1412** (an MVC pattern) as well as the cross-cutting Core Modules **700**. App Module Client Proxy **1414** interfaces with Network(s) **108** which in turn integrates with Social Media System APIs **1002** introduced in FIG. **10**.

[0154] FIG. **15** is a block diagram which illustrates another possible Social Media App(s) **110** for User **104** in FIG. **1** who is Individual **402** in FIG. **4** using an iOS app or Android app. In this embodiment of the invention, Social Media App(s) **110** includes Operating System **1500** which is the basis for all these app modules that get compiled and distributed through an app store. Operating System **1500** is comprised of Message Board App Module **1330**, Chronicle App Module **1312**, Posting App Module **1336**, Publishing App Module **1338**, Subscription App Module **1342**, Distribution App Module **1320**, Content App Module **1316**, Connection App Module **1314**, Wallet App Module **1346**, Licensing App Module **1326**, and Analytics App Module **1306**, Core Modules **700** and App Module Client Proxy **1414**. App Module Client Proxy **1414** interfaces with Network(s) **108** and enables the cross-cutting Core Modules **700** to get to Social Media System APIs **1102** introduced in FIG. **11**.

[0155] FIG. **16** is a block diagram of Platform System Modules **1600**, which is comprised of API Platform System Modules **1602**, Archive Platform System Modules **1604**, Audit Platform System Modules **1606**, Chronicle Platform System Modules **1608**, Directory Platform System Modules **1610**, Identity Platform System Modules **1612**, Ledger Platform System Modules **1614**, Onboarding Platform System Modules **1616**, Payment Platform System Modules **1618**, Platform Management System Modules **1620**, Search Plat-

form System Modules **1622**, Third Party Platform System Modules **1624**, Account Platform System Modules **1626**, Telemetry Platform System Modules **1628**, User Verification Platform System Modules **1630**, Connection Platform System Modules **1632**, Consensus Platform System Modules **1634**, SDK Platform System Modules **1636**, AI Platform System Modules **1638**, Analytics Platform System Modules **1640**, Machine Learning Platform System Modules **1642**, Trending Platform System Modules **1644**, Endorsement Platform System Modules **1646**, Ad Platform System Modules **1648**, Content Verification Platform System Modules **1650**, Index Platform System Modules **1652**, and Content Platform System Modules **1654**. Platform System Modules **1600** interfaces with Core Modules **700** which provides all the cross-cutting functionality for Platform System Modules **1600**.

[0156] Each of these platform system modules represents the high-level cross-cutting programming and configuration needed to manage all of the corresponding services of Platform System **102** in FIG. **1**. They can work alone or be combined. They are combined by either compilation or as separate systems by networks or by sitting in the same operating system and communicating via API or SDK. Many of these platform system modules are platform specific implementations of System Modules **800** in FIG. **8**, thereby adding platform specific functionality for the platform as opposed to system modules that provide functionality scoped specifically for Social Media System **106** in FIG. **1**. These platform system modules are designed primarily for the server side, however could also be used to extend the functionality of App Modules **1300** in FIG. **13** on the client side as part of an N-tiered architecture.

[0157] API Platform System Modules **1602** manages API features and functionality across the entire platform. Archive Platform System Modules **1604** manages archive features and functionality across the entire platform. Audit Platform System Modules **1606** manages audit features and functionality across the entire platform. Chronicle Platform System Modules **1608** manages chronicle features and functionality across the entire platform. Directory Platform System Modules **1610** manage directory features and functionality across the entire platform. Identity Platform System Modules **1612** manage identity features and functionality across the entire platform. Ledger Platform System Modules **1614** manage ledger features and functionality across the entire platform. Onboarding Platform System Modules **1616** manages onboarding features and functionality across the entire platform. Payment Platform System Modules **1618** manages payment features and functionality across the entire platform. Platform Management System Modules **1620** represents the main set of system modules that manages and integrates with all other platform system modules on the platform. Search Platform System Modules **1622** manages search features and functionality across the entire platform. Third Party Platform System Modules **1624** manages third-party features and functionality across the entire platform. Account Platform System Modules **1626** manages account features and functionality across the entire platform.

[0158] Telemetry Platform System Modules **1628** manages telemetry features and functionality across the entire platform. User Verification Platform System Modules **1630** manages user verification features and functionality across the entire platform. Connection Platform System Modules **1632** manages connection features and functionality across the entire platform. Consensus Platform System Modules **1634** manages consensus features and functionality across the entire platform. SDK Platform System Modules **1636** manages the software development kits used to provide any additional features and functionality across the entire platform. AI Platform System Modules **1638** manages AI features and functionality across the entire platform. Analytics Platform System Modules **1640** manages analytics features and functionality across the entire platform. Machine Learning Platform System Modules **1642** manages machine learning features and functionality across the entire platform. Trending System Modules **1644** manages trending features and functionality across the entire platform. Endorsement Platform System Modules **1646** manages endorsement features and functionality across the entire platform. Ad Platform System Modules **1648** manages ad features and functionality across the entire platform. Content Verification Platform System Modules **1650** manages content verification features and functionality across the entire platform. Index Platform System Modules **1652** manages index features and functionality across the entire platform. Content Platform System Modules **1654** manages content features and functionality across the entire platform.

[0159] Note that third parties who offer Software as a Service (SaaS) could provide functionality across the entire platform via Third Party Platform System Modules **1624**, or just on Social Media System **106** in FIG. **1** via Third Party System Modules **844** in FIG. **8**, or just on Social Media App(s) **110** in FIG. **1** via Third Party App Modules **1344** in FIG. **13**. The same can be said for software development kits (SDKs) which could be used to extend platform functionality via SDK Platform System Modules **1636**, system functionality via SDK System Modules **860** in FIG. **8**, or application functionality via SDK App Module **1360** in FIG. **13**.

[0160] FIG. **17** is a block diagram of Platform System Layers **1700** which is comprised of Platform Systems **102** which is integrated with Platform System Modules **1600**. Platform System Modules **1600** is integrated with System Modules **800**, Platform Modules **600**, Core Modules **700**, and Platform Services **500**. System Modules **800** is integrated with Platform Services **500**. Platform Modules **600** is integrated with Core Modules **700** and Platform Services **500**. Core Modules **700** is integrated with Platform Modules **600** and Platform Services **500**. Platform Services **500** is integrated with the Network(s) **108** via Platform System APIs **1702**, which are the sum composite of all the application programming interfaces that are exposed by the Platform Systems **102**. Platform Systems **102** interfaces with Social Media Systems **106**, Social Media App(s) **110**, Public Archivists **116**, Public Auditors **114**, and Third Party Services **112** across Network(s) **108**. This diagram illustrates the constituent foundational layering of Platform Systems **102** that is derived vis a vie Platform System Modules **1600** in their relationship with System Modules **800**, Platform Modules **600**, Core Modules **700**, and Platform Services **500** and as well as the interaction across Network(s) **108** with Social Media System **106**, Social Media App(s) **110**, Public Archivists **116**, Public Auditors **114**, and Third Party Services **112**. In short, one sees the N-tiered architecture from the point of view of Platform System Modules **1600** in FIG. **16**.

[0161] FIG. **18** is a block diagram of Social Media App Layers **1800** which is comprised of Social Media App(s) **110**

which is integrated with App Modules **1300**. App Modules **1300** is integrated with App Module Client Proxy **1414** and Core Modules **700**. App Modules Client Proxy **1414** is integrated with Core Modules **700** and Network(s) **108**. Core Modules is integrated with App Module Client Proxy **1414** and Network(s) **108**. Social Media App(s) **110** interfaces with Social Media System APIs **902**, Platform System APIs **1702**, Public Archivists **116**, Public Auditors **114**, and Third Party Services **112** across Network(s) **108**. This diagram illustrates the constituent foundational layering of Social Media App(s) **110** that is derived vis a vie App Modules **1300** in their relationship with App Module Client Proxy **1414** and Core Modules **700** as well as the interaction across Network(s) **108** with Social Media System APIs **902**, Platform System APIs **1702**, Public Archivists **116**, Public Auditors **114**, and Third Party Services **112**. In short, this diagram illustrates the N-tiered architecture from the point of view of App Modules **1300** in FIG. **13**.

[0162] FIG. **19** is a block diagram of Platform Management System Modules **1900** which is comprised of System Management Module **1902**, App Management Module **1904**, Lifecycle System Modules **1906**, Alert System Module **1916**, Performance System Module **1918**, Job Scheduling System Module **1920**, Monitoring System Module **1922**, Reporting System Module **1924**, Inventory System Module **1926**, and Security System Module **1928**. Lifecycle System Modules **1906** consists of Deployment System Module **1908**, Configuration System Module **1910**, Update System Module **1912**, and Decommission System Module **1914**. Platform Management System Modules **1900** interacts with Core Modules **700** which provides all the cross-cutting functionality for Platform Management System Modules **1900**. This diagram illustrates the functionality required for managing all Platform System Modules **1600** in FIG. **16**, all System Modules **800** in FIG. **8**, and all App Modules **1300** in FIG. **13**. Platform Management System Modules **1900** provides the cross-cutting services, such as alerts, performance, job scheduling, monitoring, security and lifecycle management, that one would expect in any complex N-tiered architecture across all layers. This functionality is critical given that the platform will ultimately support a multitude of users, systems, and apps across Distributed Social Media Network **300** in FIG. **3**.

[0163] FIG. **20** is a block diagram of Chronicle Record **2000** which is comprised of Record Header **2002**. Record Headers **2002** consists of Id **2004**, Version **2006**, Timestamp **2008**, Previous Record Hash **2010**, Record Nonce **2012**, Record Hash **2014**, Record Header Graph **2016**, and Record Signature **2018**. Chronicle Record **2000** is further comprised of a number of additional graphs, all of which descend from Base Graph **2050**. Base Graph **2050** consists of Base Graph Schema **2052**, Base Graph Schema Version **2054**, Base Graph Hash **2056**, Base Graph Signature **2058**, Base Graph Estimated Work **2060**, and Base Graph Actual Work **2062** as well as Graph Collection **2070** which consists of Node(s) **2072** and Edge(s) **2074**.

[0164] Source Graph **2020**, Contracts Graph **2022**, Content Graph **2024**, Workflow Graph **2026**, Index Graph **2028**, State Graph **2030**, Audit Graph **2032**, Directory Graph **2034**, Conference Graph **2036**, and Other Graph **2038** all inherit the properties and graph collection of Base Graph **2050**.

[0165] Source Graph **2020** documents any individuals or entities associated with Chronicle Record **2000**. Contracts Graph **2022** contains smart contracts data associated with Chronicle Record **2000**. Content Graph **2024** contains the content for Chronicle Record **2000** as well as individuals, entities or other data associated with the content. Workflow Graph **2026** contains the workflow data associated with Chronicle Record **2000**. Index Graph **2028** contains data used for indexing Chronicle Record **2000**. State Graph **2030** contains state information about Chronicle Record **2000**. Audit Graph **2032** contains data pertaining to auditing Chronicle Record **2000**. Directory Graph **2034** contains directory data associated with Chronicle Record **2000**. Conference Graph **2036** contains conference data associated with Chronicle Record **2000**. Other Graph **2038** contains any other data associated with Chronicle Record **2000**.

[0166] These graphs may contain programming logic in addition to the data. In one embodiment of the invention, the data and programming logic is encrypted. In another embodiment of the invention, the data and programming logic is not encrypted. These graphs may be used in conjunction with one another and by other workflows outside of Chronicle Record **2000**. In one embodiment of the invention, Record Signature **2018** and Base Graph Signature **2058** is required. In another embodiment of the invention, these signatures are not required for Record Header **2002** and Base Graph **2050**. Also note that Node(s) **2072** and Edge(s) **2074** can be a part of multiple schemas.

[0167] Hash Algorithms **2080** are used to determine hashes for Chronicle Record **2000** as well as Previous Record Hash **2010**, Record Hash **2014**, and Base Graph Hash **2056** for each graph included in the record. Merkle Tree **2082** is used for Previous Record Hash **2010** and Record Hash **2014**. The data included in the Merkle tree includes all the base graph hashes and is used in combination with the header fields to determine the Merkle root. Base Graph Hash **2056** for all graphs in Chronicle Record **2000** uses either Object Graph Hash Algorithm **2084** or Graph Schema Hash Algorithm **2086**. Object Graph Hash Algorithm **2084** dynamically analyzes nodes and edges in the object data base, sorts them alphanumerically, and generates a schema which is then used to calculate a root hash. Graph Schema Hash Algorithm **2086** uses the predetermined Base Graph Schema **2052** for each graph to determine the hashes.

[0168] In sum, Chronicle Record **2000** is a unique collection of data and programming which provides complete traceability and visibility into what's in the record, how it came to be, every individual or entity that touches it, and every change that is made to it.

[0169] FIG. **21** is a block diagram of Chronicle **2100** which is comprised of Chronicle Header **2102** as well as chains of chronicles records. Chronicle Header **2102** consists of Id **2104**, Version **2106**, Timestamp **2108**, Previous Chronicle Hash **2110**, Chronicle Nonce **2112**, Chronicle Hash **2114**, Chronicle Header Graph **2116**, and Chronicle Header Graph Hash **2118**. Chronicle Header **2102** is analogous to a blockchain header, but different because it contains Chronicle Header Graph **2016** and Chronicle Graph Hash **2118** which provides complete traceability and visibility into what happened to the data (and how it came to be) on its way to becoming immutable. The other distinguishing aspect of Chronicle Header **2101** is that Chronicle Hash **2114** is derived from different data being hashed.

[0170] The chaining of chronicle records in Chronicle **2100** is represented by Chronicle Record **2120-1** with Previous Record Hash **2122** and Record Hash **2124** linked to Chronicle Record **2120-2** with Previous Record Hash **2126**

and Record Hash **2128** linked to Chronicle Record **2120**-N with Previous Record Hash **2130** and Record Hash **2132**. This chain is analogous to a blockchain, but different in two ways. First, it comprises a set of data for a specific 24-hour time period. It is not a never-ending chain of blocks. Second, each block contains exactly one Chronicle Record **2000** from FIG. **20**. It is not a block of multiple transactions.

[0171] Each Chronicle Record **2000** is also chained via a directional acyclic graph. The chaining of Chronicle Record **2160** with Previous Record Hash **2162** and Record Hash **2164**, Chronicle Record **2166** with Previous Record Hash **2168** and Record Hash **2170**, and Chronicle Record **2172** with Previous Record Hash **2174** and Record Hash **2176** is designed specifically with state changes in mind. This directional acyclic graph chain enables Chronicle **2100** to record state changes of chronicle records and provide quick access to a complete history of all changes to a Chronicle Record **2000** in FIG. **20**.

[0172] Chronicle **2100** as a construct is highly scalable and allows for parallelism across the platform. Every Social Media System **106** in FIG. **1** has its own Chronicle **2100**, and all chronicles are being worked on simultaneously. Every 24 hours, the platform is designed to generate a new genesis block and start a new Chronicle **2100** for that day. Every Social Media System **106** does the same thing with its primary Chronicle **2100**. Social Media System **106** may or may not have a Chronicle **2100** for every other Social Media System **106**. Social Media System **106** and Platform System **102** in FIG. **1** may choose to aggregate chronicles. Chronicles are made available to Public Auditors **116**, Public Archivists **114** and Third Parties **112** within Distributed Social Media Network **300** in FIG. **3**.

[0173] This construct also greatly reduces the surface area for attacks. If something bad happens to Social Media System **106** in FIG. **1**, such as a catastrophic event, hack, or denial of service attack, it does not impact the whole system or all chronicles. Additionally, there is inherent sharding in this approach, solving the problem of large scale data across a really complex ecosystem and its ability to be quickly saved, retrieved and updated. With a multitude of separate chronicles, created every 24 hours, one only needs a point in time and source to get to a much smaller data set very quickly. Sharding also alleviates the problem of hotspots. If there is a lot of activity on a centralized social media network (e.g. something is trending), it creates a hot spot in the monolithic social media system which consumes lots of resources and requires triage. Various embodiments of the present technology address hot spots because data is massively distributed with multiple chronicles stored across Distributed Social Media Network **300** in FIG. **3**. If something starts trending for a specific Social Media System **106** in FIG. **1**, the social media system is already set up for handling increased demand at any moment because 1) it is geo-redundant, 2) Platform Management System **218** in FIG. **2** will auto-scale to meet demand, and 3) much of the Chronicle **2100** associated with that social media system can actually be cached for the day.

[0174] In sum, Chronicle **2100** is a system of record that stores chronicle records in chronological order with specific details. In one embodiment of the invention, Chronicle **2100** stores data or URIs as part of its system. In another embodiment of the invention, Chronicle **2100** stores data in traditional data storage like SQL, NoSQL, files, object databases, document databases, etc. By using the foundational technologies of hashes, Merkle trees and blockchain, whether it is straight chaining or done inside of a directional acyclic graph, Chronicle **2100** brings integrity back to social media networking with full, complete, and accurate data and information sharing that is highly scalable, searchable, and secure.

[0175] FIG. **22** is a block diagram of Annals **2200** which is comprised of Annals Header **2202** as well as chains of chronicles. Annals Headers **2202** consists of Id **2204**, Version **2206**, Timestamp **2208**, Previous Annals Hash **2210**, Annals Nonce **2212**, Annals Hash **2214**, Annals Header Graph **2216**, and Annals Header Graph Hash **2218**.

[0176] The chaining of chronicles in Annals **2200** into a blockchain is represented by Chronicle **2220-1** with Previous Chronicle Hash **2222** and Chronicle Hash **2224** linked to Chronicle **2220-2** with Previous Chronicle Hash **2226** and Chronicle Hash **2228** linked to Chronicle **2220**-N with Previous Chronicle Hash **2230** and Chronicle Hash **2232**. Additionally, Annals **2200** includes the chaining of Chronicle **2260** with Previous Chronicle Hash **2262** and Chronicle Hash **2264** to Chronicle **2266** with Previous Chronicle Hash **2268** and Chronicle Hash **2270** to Chronicle **2272** with Previous Chronicle Hash **2274** and Chronicle Hash **2276** via a directional acyclic graph to record state changes.

[0177] This diagram illustrates that chronicles can be aggregated into Annals **2200**, which is a record of events for a whole year. Annals **2200** has basically the same composition as Chronicle **2100** in FIG. **21**, but chronicles are now being chained instead of chronicle records. As data moves from hot storage in the form of Chronicle **2100** per day(s), it is placed in cold storage in the form of Annals **2200**. This makes searching, organizing, and locating records and state changes very easy, again reinforcing the traceability and visibility of data as well as the transparency of activity on Distributed Social Media Network **300** in FIG. **3**.

[0178] FIG. **23** is a block diagram of Chronicle Platform System Modules **1608** which is comprised of Chronicle Aggregation Platform System Module **2300**, Chronicle Archive Platform System Module **2302**, Chronicle Audit Platform System Module **2304**, and Chronicle Management Module **2306**. Chronicle Platform System Modules **1608** interacts with Core Modules **700** which provides all the cross-cutting functionality for Chronicle Platform System Modules **1608**. These modules represent the different functional sets that make up the Chronicle Platform System Modules **1608** which work across the entire platform. The platform uses one, many or all of these modules to work with Chronicle **2100** in FIG. **21**. Chronicle Aggregation Platform System Module **2300** manages the functionality required for aggregating chronicles and creating annals. Chronicle Archive Platform System Module **2302** manages the functionality required for facilitating archiving as a service with third parties or actually archiving chronicles outside the platform with entities such as the Library of Congress. Chronicle Audit Platform System Module **2304** manages the functionality required to facilitate auditing in the public domain. Chronicle Management Module **2306** manages a general set of functions required for managing chronicles on the platform.

[0179] FIG. **24** is a block diagram of Chronicle System Modules **812** which is comprised of Chronicle Aggregation System Module **2402**, Chronicle Archive System Module **2404**, Chronicle Audit System Module **2408**, Chronicle

Blockchain System Module **2410**, Chronicle Content System Module **2412**, Chronicle Contracts System Module **2414**, Chronicle Core System Module **2416**, Chronicle Directed Acyclic Graph System Module **2418**, Chronicle Graph Encryption System Module **2420**, Chronicle Graph Hash System Module **2422**, Chronicle Graph Query System Module **2424**, Chronicle Graph System Module **2426**, Chronicle Index System Module **2428**, Chronicle Other System Module **2430**, Chronicle Source System Module **2432**, Chronicle State System Module **2434**, Chronicle System Module **2436**, Chronicle Workflow System Module **2438**, Chronicle chron URI System Module **2810**, Chronicle Directory System Module **2442**, and Chronicle Search System Module **2444**. Chronicle System Modules **812** interfaces with Chronicle **2100** as well as Core Modules **700** which provides all the cross-cutting functionality for Chronicle System Modules **812**. These modules represent the different functional sets that make up Chronicle System Modules **812** that serve Social Media System **106** in FIG. **1**. Every Social Media System **106** uses one, many or all of these system modules to work with their local chronicle(s) represented by Chronicle **2100** in FIG. **21**.

[0180] Chronicle Aggregation System Module **2402** manages the aggregation features and functionality required for chronicles. Chronicle Archive System Module **2404** manages the archive features and functionality required for chronicles. Chronicle Audit System Module **2408** manages the audit features and functionality required for chronicles. Chronicle Blockchain System Module **2410** manages the blockchain features and functionality required for chronicles. Chronicle Content System Module **2412** manages the content features and functionality required for chronicles. Chronicle Contracts System Module **2414** manages the contracts features and functionality required for chronicles. Chronicle Core System Module **2416** manages the core features and functionality required for chronicles. Chronicle Directed Acyclic Graph System Module **2418** manages the directed acyclic graph features and functionality required for chronicles. Chronicle Graph Encryption System Module **2420** manages the graph encryption features and functionality required for chronicles. Chronicle Graph Hash System Module **2422** manages the graph hash features and functionality required for chronicles. Chronicle Graph Query System Module **2424** manages the graph query features and functionality required for chronicles. Chronicle Graph System Module **2426** manages the graph features and functionality required for chronicles. Chronicle Index System Module **2428** manages the indexing features and functionality required for chronicles. Chronicle Other System Module **2430** manages other features and functionality required for chronicles. Chronicle Source System Module **2432** manages source features and functionality required for chronicles, Chronicle State System Module **2434** manages state features and functionality required for chronicles. Chronicle System Module **2436** is the top-level module that contains all the functionality required for managing all chronicle system modules. Chronicle Workflow System Module **2438** manages the workflow features and functionality required for chronicles. Chronicle chron URI System Module **2438** manages the chron URI features and functionality required for chronicles. Chronicle Directory System Module **2442** manages the directory features and functionality required for chronicles. Chronicle Search System Module **2444** manages the search features and functionality required for chronicles.

[0181] FIG. **25** is a block diagram of Chronicle Record **2000** which is comprised of Directory Graph **2054**. Directory Graph **2034**, which descends from Base Graph **2050** in FIG. **20**, consists of Directory Graph Schema **2502**, Directory Graph Schema Version **2504**, Directory Graph Hash **2506**, and Directory Graph Signature **2507**. Directory Graph **2034** also consists of Directory Graph Collection **2508** which contains Node(s) **2510** and Edge(s) **2540**. Node(s) **2510** consists of Person **2512**, Location **2514**, Profile **2516**, Reputation **2518**, and Group **2520**. Edge(s) **2540** consists of Lives At **2542**, Related To **2544** and Member Of **2546**. Person **2512** may contain the properties Full Name **2560**, Claimed Timestamp **2562**, Verified Timestamp **2564**, and Public Key **2566**; there may be other properties as well. Distributed Social Media Network **300** in FIG. **3** utilizes a directory which is a phone book type listing of each and every User **104** in FIG. **1**, namely Individuals **402**, Businesses **404**, Charities & Non-Profits **412**, and Government **424** in FIG. **4**. In one embodiment of the invention, User **104**'s listing could include name, contact details, profile information, reputation, group affiliations, etc. In another embodiment of the invention, User **104** could elect to just have their name listed and additional details unlisted. This diagram illustrates that each directory listing exists in Chronicle Record **2000**, making the information easily accessible and searchable as well as any state changes visible and traceable. Unlike existing social media platforms, User **104** in FIG. **1** owns and controls their listing details, not the network. All the functionality needed to work with the directory, which is put into Chronicle **2100** from FIG. **21**, is encapsulated by various platform, system and app modules.

[0182] FIG. **26** is a block diagram of Chronicle Record **2000** which is comprised of State Graph **2030**. State Graph **2030**, which descends from Base Graph **2050** in FIG. **20**, consists of State Graph Schema **2600**, State Graph Schema Version **2602**, State Graph Hash **2604**, and State Graph Signature **2607**. State Graph **2030** also consists of State Graph Collection **2606** which contains Node(s) **2608** and Edge(s) **2640**. Node(s) **2608** consists of State **2610**. State **2610** has the properties State Enumeration **2660**, State Timestamp **2662**, and State Signed **2664**. State Graph Signature **2607** is used to do the signing at State Signed **2664**. State Enumeration **2660** consists of Submitted **2670**, Updated **2672**, Distributed **2674**, Verified **2676**, Signed **2678**, Published **2680**, Posted **2682**, Archived **2684**, and Rejected **2686**. This diagram provides another example of how the platform is using chronicle records as a construct to manage and run the platform. State Graph **2030** is used everywhere on the platform that state is needed. It tracks the state changes of data, workflows, and transformations and saves them in Chronicle Record **2000**. However, State Graph **2030** may or may not be in any given Chronicle Record **2000**. Unlike blockchain transactions, chronicle records are dynamic and do not always have the same composition.

[0183] FIG. **27** is a block diagram of Directory Platform System Modules **1610** which is comprised of Directory Aggregation Platform System Module **2700**, Directory Archive Platform System Module **2702**, Directory Audit Platform System Module **2704**, and Directory Management Module **2706**. Directory Platform System Modules **1610**

interacts with Core Modules **700** which provides all the cross-cutting functionality for Directory Platform System Modules **1610**. This diagram illustrates the required functionality for working with directories, including aggregation, archiving, auditing, and overall directory management across the platform. Every Social Media System **106** in FIG. **1** has its own directory which contains listings of individuals or entities that User **104** is connected to, either by extending an invitation or accepting an invitation. Directories can also be aggregated across Distributed Social Media Network **300** in FIG. **3**, whereby the data may or may not be replicated to every other Social Media System **106** in FIG. **1**.

[0184] FIG. **28** is a block diagram of Directory System Modules **818** which is comprised of Directory Claim System Module **2802**, Directory Contact System Module **2804**, Directory System Module **2806**, Directory Keys System Module **2808**, Directory listing URI System Module **2810**, Directory Name System Module **2812**, Directory Reputation System Module **2814**, Directory Profile System Module **2816**, Directory Verification System Module **2818**, and Directory Group System Module **2820**. These system modules represent the functionality required for Social Media System **106** in FIG. **1** to work with a directory data set which consists of Chronicle Record **2000** along with Directory Graph **2500** and State Graph **2030** inside Chronicle **2100**. Given the platform's Distributed Architecture **100** in FIG. **1**, every User **104** via its own Social Media System **106** is potentially contributing to the directory. All new listings are stored in Chronicle Record **2000**, specifically in Directory Graph **2500**, which is able to track state via State Graph **2030**. Any additions or changes to listings in the directory results in additional chronicle records. Directory System Modules **818** also interacts with Core Modules **700** which provides all the cross-cutting functionality for Directory System Modules **818**.

[0185] Directory Claim System Module **2802** provides the system modules for managing the claiming of listings in the directory. Directory Contact System Module **2804** provides the system modules for managing the contacting of listings in the directory. Directory System Module **2806** provides the system modules for managing the general features and functionality of the directory. Directory Keys System Module **2808** provides the system modules for managing keys in the directory. Directory listing URI System Module **2810** provides the system modules for managing listing URIs in the directory. Directory Name System Module **2812** provides the system modules for managing names in the directory. Directory Reputation System Module **2814** provides the system modules for managing reputation in the directory. Directory Profile System Module **2816** provides the system modules for managing profiles in the directory. Directory Verification System Module **2818** provides the system modules for managing verification in the directory. Directory Group System Module **2820** provides the system modules for managing groups of listings in the directory.

[0186] FIG. **29** is a block diagram of Chronicle Record **2000** which is comprised of Content Graph **2024**. Content Graph **2024** descends from Base Graph **2050** in FIG. **20** and consists of Content Graph Schema **2902**, Content Graph Schema Version **2904**, Content Graph Hash **2906** and Content Graph Signature **2907**. Content Graph **2024** also consists of Content Graph Collection **2908** which is comprised of Node(s) **2910** and Edge(s) **2940**. Node(s) **2910** consists of Content **2912**, License **2914**, Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922**, and Catalog **2924**. Content **2912** consists of Id **2950**, Timestamp **2952**, Distribution Release Timestamp **2954**, Public Release Timestamp **2956**, Audit Release Timestamp **2958**, and Archive Release Timestamp **2960**. This diagram illustrates that Content System Modules **816** in FIG. **8** uses Chronicle **2100** in FIG. **21** for data storage, access and search. In essence, all content is stored in Chronicle Record **2000** with Content Graph **2024** and Content Graph Collection **2808**, which in addition to the content, provides critical properties such as license and copyright as well as ways to search the content. The various content timestamps are used by workflows to determine what to do with the content and when.

[0187] FIG. **30** is a block diagram of Account Platform System Modules **1626** which is comprised of Access Control Account System Module **3002**, Account Management Module **3004**, Analytics Account System Module **3006**, Compliance Account System Module **3008**, Helpdesk Account System Module **3010**, Invoice Account System Module **3012**, Partner Account System Module **3014**, Payment Account System Module **3016**, Quota Account System Module **3018**, and Usage Account System Module **3020**. Account Platform System Modules **1626** interacts with Core Modules **700** which provides all the cross-cutting functionality for Account Platform System Modules **1626**. This diagram details the platform system modules that enable all the functionality required for accounting on the platform.

[0188] FIG. **31** is a block diagram of Distribution System Modules **820** which is comprised of the Distribution System Module **3100**, Distribution Event Grid Module **3102**, Distribution Notification Hub Module **3106**, and Consensus Event Grid Module **3110**. Distribution Event Grid Module **3102** is connected to Distribution Event Grid **3104**. Distribution Notification Hub Module **3106** is connected to Distribution Notification Hub **3108**. Consensus Event Grid Module **3110** is connected to Consensus Event Grid **3112**. Distribution System Modules **820** interacts with Chronicle **2100** as well as Core Modules **700** which provides all the cross-cutting functionality for Distribution System Modules **820**. This diagram details that information is distributed across Distributed Social Media Network **300** in FIG. **3** using both pull and push techniques.

[0189] In one embodiment of the invention, Distribution Event Grid **3104** managed by Distribution Event Grid Module **3102** is used for information distribution on the platform. Here User **104** tells its Social Media System **106** in FIG. **1**, "Hey, I want to know about certain things. Let me know when you have new data for a specific topic, and I'm going to give you an address for you to use. I'm going to go do other things while I wait. You can always use this address whenever you have something for me." Social Media System **106** fulfills on its promise to User **104** by returning with the requested data. Using event grids on Distributed Social Media Network **300** in FIG. **3** allows the social media systems to communicate in parallel on a massive scale, thereby creating tremendous efficiencies.

[0190] In another embodiment of the invention, Distribution Notification Hub **3108** managed by Distribution Notification Hub Module **3106** is used. Here Social Media App(s) **110-1** to N and Social Media Systems **106-1** to N from FIG. **3** who are all waiting for the same data can now efficiently distribute that data to Users **104-1** to N at the same time. Again, embodiments of the present technology

leverage parallelism for distributed communication without a centralized server managing information flow on the network.

[0191] In another embodiment of the invention, Consensus Event Grid **3112** managed by Consensus Event Grid Module **3110** uses an event grid for consensus.

[0192] FIG. **32** is a block diagram of Search System Modules **840** which is comprised of Search System Module **3200** (there could be others) and interacts with Chronicle **2100** as well as Core Modules **700** which provides all the cross-cutting functionality for Search System Modules **840**. This diagram details the system module(s) that enable all the functionality required for User **104** in FIG. **1** to do searches of Chronicle **2100** in FIG. **21**.

[0193] FIG. **33** is a block diagram of Connection System Modules **840** which is comprised of Connection System Module **3300** (there could be others) and interacts with Chronicle **2100**, Directory System Modules **818**, and Core Modules **700** which provides all the cross-cutting functionality for Connection System Modules **840**. Social Media System **106** in FIG. **1** uses Connection System Module **3300** to store directory listings of connections via Directory System Modules **818** into their Chronicle **2100**. This diagram demonstrates how various system modules can interact with each other. For example, it would also be possible to layer in Search System Module **3200** in FIG. **32** to quickly find the directory listings User **104** in FIG. **1** wants to add to their Chronicle **2100**.

[0194] FIG. **34** is a block diagram that illustrates how Post **3400** is made on Distributed Social Media Network **300** in FIG. **3**. Posts can be deleted at any time. User **104** maintains total ownership and control of the content and associated metadata. This type of sharing is private. User **104** can post messages plus content that is stored on their Social Media System **106**, such as photos, videos, PDFs, etc., provided it meets the terms of service (and video time limits) of the network. User **104** uses Social Media App(s) **110** to compose a post. They have at their ability all App Modules **1300**. They use Message Board App Module **1330** to create a post and may also use other app modules in the creation of the post, such as Connection App Module **1314** in FIG. **13** to designate who they are going to share it with. Before they send the post, User **104** uses Signing Core Module **724** to digitally sign the post. The post now goes into Posting App Module **1336** which sends the post to Social Media System **106** via Network(s) **108**.

[0195] Social Media System **106** is composed of all System Modules **800**. These system modules can all work together or stand on their own to provide functionality for Social Media System **106**. First the post goes into Compliance System Modules **850** to ensure the message conforms to the platform's compliance standards and rules. This may or may not include scanning the message, sending an image to a learning machine to determine its contents, or opening up the message for third party analysis with functionality represented by AI System Modules **804**, Machine Learning System Modules **826**, and Third Party System Modules **844** in FIG. **8**. While data scraping is a possibility, it is not the intent. Ideally the message is read for analysis, but never stored off. Next the post is stored inside User **104**'s own Chronicle **2100** in FIG. **21** via Chronicle System Modules **812**. Because posting allows User **104** to own, control, and delete content, the actual content does not leave their Social Media System **106**. Connection System Modules **814** creates a URI to the data in Users **104**'s Chronicle **2100** which is then encrypted and passed onto Distribution System Modules **820**, so the post can be distributed to its designated recipients via Network(s) **108**.

[0196] User **104-1** accesses the post on their Social Media App(s) **110-1** aided by Message Board App Module **1330**. User **104-2** accesses the post on their Social Media App(s) **110-2** aided by Message Board App Module **1330**. User **104**-N accesses the post on their Social Media App(s) **110**-N aided by Message Board App Module **1330**. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media app(s) for every user on the network that could potentially receive User **104**'s post. Core Modules **700** provides all the cross-cutting functionality for Social Media App(s) **110** and Social Media System **106** and their associated App Modules **1300**, System Modules **800**, Platform System Modules **1600** required to Post **3400**.

[0197] In sum, Distributed Social Media Network **300** in FIG. **3** facilitates a truly unique form of posting not possible with existing centralized social media networks. User **104** creates their own specific instance of a social media network where they have total ownership and control of the content they post as well as the connections they send it to. All intended connections receive all intended posts. There is no algorithm or centralized authority filtering the posts or the recipients, and User **104** can delete a post at any time without fearing the content and associated metadata remains stored off in an external data center, vulnerable to malicious misuse.

[0198] FIG. **35** is a use case diagram of Publishers **3500**. It introduces a new subset to the superset User **104** in FIG. **1** and illustrates that Individuals **402**, Businesses **404**, Charities & Non-Profits **412**, and Government **424** can all be Publisher **3502** on Distributed Social Media Network **300** in FIG. **3**.

[0199] FIG. **36** is a block diagram of Platform Tenets **3600** which is comprised of Complete Traceability **3602**, Complete Transparency **3604**, Fair Intrinsic Value **3606**, Integrity is the Currency **3608**, Level Playing Field **3610**, Permanent Public Record **3612**, Platform Anti-Counterfeiting Measures **3614**, Public Archiving **3616**, Public Auditing **3618**, Records are Signed **3620**, Right of First Refusal **3622**, Users are Known **3624**, Users are Verified **3626**, Users Get Paid for their Content **3628**, and Content is Verified **3630**. This diagram details the main tenets of the platform that are essential to addressing the problems with existing social media options and delivering a transformed social media experience based on integrity, civility and fairness.

[0200] FIG. **37** is a block diagram of Publishable Content Types **3700** which is comprised of Announcements **3702**, Broadcast **3704**, Business **3706**, Calendar of Events **3708**, Circular Ads **3710**, Comics **3712**, Crossword Puzzles **3714**, Classified Ads **3716**, Display Ads **3718**, Editorial/Opinion **3720**, Features **3722**, Medium Based **3724**, News **3726**, Notifications **3728**, IANA Media Type Based **3730**, Recantation **3732**, Retraction **3734**, Rhetoric **3736**, Streaming **3738**, Sports **3740**, Subject Based **3742**, Other **3744**, This Day in History **3746**, and Advice **3748**. This diagram illustrates that many of Publishable Content Types **3700** follow the lexicon of a traditional newspaper, transformed for the digital age: News **3726**, Business **3706**, Sports **3740**, Features **3722** (such as home and garden, cars, travel, cooking, technology, special focused reports), Editorial/

Opinion **3720**, Announcements **3702**, Notifications **3728**, Calendar of Events **3708**, Classified Ads **3716**, Display Ads **3718**, Circular Ads **3710**, Comics **3712**, Crossword Puzzles **3714**, and Advice **3748**. Publishable content can also be Subject Based **3742** (such as faith/inspiration or comedy/satire), Medium Based **3724** (such as magazines, books, music, movies, or art), IANA Media Type Based **3730** (such as text, photo, etc.), Broadcast **3704** (includes live curation), Streaming **3738** (includes self-curation), Other **3744** (such as a daily diary), or This Day in History **3746** (a summary of key events from each daily Chronicle **2100** in FIG. **21**). Publishable content cannot be deleted once published, but User **104** in FIG. **1** can publish a Recantation **3732** or Retraction **3734**.

[0201] FIG. **38** is a block diagram of Consensus by Conference **3800** which is required for publishing on the platform. It is comprised of Conference Consensus Categories **3802**, Conference Consensus Preconditions **3810**, Conference Consensus Settings **3822**, and Consensus by Conference Proof of Stake **3850**. Consensus by Conference **3800** is used to generate protected consensus within a protected network as every User **104**, Social Media System **106** and Social Media App(s) **110** in Distributed Social Media Network **300** in FIG. **3** is known, authenticated and authorized.

[0202] Conference Consensus Categories **3802** consists of Conference Consensus Machine Learning **3804** which is based on a training set of data containing instances whose features and assigned category membership is known, Conference Consensus Features **3806** which are derived from system composition profiles and their resulting performance metrics from telemetry data managed by Telemetry System **226** in FIG. **2**, and Conference Consensus Classifier **3808** which is a classification algorithm that maps a new instance's system profile data to a category.

[0203] Conference Consensus Preconditions **3810** consists of Platform System Category Conference Topics **3812**, Platform System Category Attendee Topics **3814**, Publisher Consensus System Category Classification **3816**, Publisher Consensus System Category Conference Event Subscription **3818**, and Publisher Consensus System Category Attendee Event Subscription **3820**.

[0204] Platform System Category Conference Topics **3812** and Platform System Category Attendee Topics **3814**, along with other Conference Consensus Preconditions **3810**, utilize Consensus Event Grid **3112** in FIG. **31** which is managed by Consensus Event Grid Module **3110** in FIG. **31**. Event grids are incredibly efficient in terms of a Publish-Subscribe model and massively scalable. To use this as a basis for triggering consensus requests adds to the scalability and parallelism of Consensus by Conference **3800**.

[0205] Each Publisher **3502** in FIG. **35** has their own Social Media System **106** in FIG. **1** which placed into a specific Publisher Consensus System Category Classification **3816** by Consensus by Conference Machine Learning **3804**, Consensus by Conference Features **3806**, and Consensus by Conference Classifier **3808**. Category classifications are used to implement the platform tenets Level Playing Field **3610** and Fair Intrinsic Value **3606** in FIG. **36** because not every Publisher **3502**'s Social Media System **106** in FIG. **1** has the same composition or workload. For example, it is not level or fair to expect a small publisher with a small system footprint that generates four pieces of content a week to be able to meet the consensus requirements of a really large publisher with a really large system footprint that generates thousands of pieces of content a day. As a result, Publisher **3502** in FIG. **35** is put into a population with other publishers that have similar performance capabilities and workload capacities. Publisher Consensus System Category Classification **3816** also uses machine learning to dynamically self-tune itself so when Publisher **3502** in FIG. **35** changes their system footprint and/or produces more or less content, they actually shift though different classifications on the network.

[0206] The use of Consensus by Conference Categories **3802**, Consensus by Conference Preconditions **3810**, and specifically Publisher Consensus System Category Classification **3816**, enables the platform to create a multitude of consensus networks based on classification which in turn allows the platform to scale and process consensus requests in parallel. Additionally, each Social Media System **106** in FIG. **1** within their Publisher Consensus System Category Classification **3816** is configured to utilize thread pools to individually handle multiple consensus requests resulting in multiple dimensions of scalability and parallelism as well as incredibly low latency.

[0207] Conference Consensus Settings **3822** consists of Category Conference Attendee Count **3824**, Category Conference Session Count **3826**, and Category Conference Attendees Per Session Count **3828**. Each category conference has an attendee count, session count, and attendees per session count which enable degrees of parallelism. These settings are dynamically generated by each Publisher Consensus System Category Classification **3816** and used by Consensus by Conference Categories **3802** to fine tune scalability.

[0208] Consensus by Conference Proof of Stake **3850** is at the heart of Consensus by Conference **3800** and based on the platform tenet Integrity is the Currency **3608** in FIG. **36**. A hash is a pure mathematical equation, and it is in every publisher's best interest to do the calculation right. If they don't, it is reported in Conference Graph **2036** in FIG. **20** which provides Complete Traceability **3602** and Complete Transparency **3604** within Permanent Public Record **3612** in FIG. **36**. Bad actors can be called out and held accountable, so there's really no upside to being a notorious Publisher **3502** in FIG. **35** on the network. This is why Consensus by Conference Proof of Stake **3850** works within a protected consensus requirement.

[0209] In short, Consensus by Conference **3800** represents a really efficient, highly scalable, massively distributed communication protocol designed to bring integrity back to social media networking.

[0210] FIG. **39** is a block diagram Chronicle Record **2000** which is comprised of Conference Graph **2036**. Conference Graph **2036** descends from Base Graph **2050** in FIG. **20** and consists of Conference Graph Schema **3902**, Conference Graph Schema Version **3904**, Conference Graph Hash **3906**, and Conference Graph Signature **3907**. Conference Graph **2036** also consists of Conference Graph Collection **3908** which contains Node(s) **3910** and Edge(s) **3940**. Node(s) **3910** include Conference **3912**, Coordinator **3916**, Attendees **3918** and Graphs **3920**. Edge(s) **3940** include Results **3942**. There could also be other nodes and edges. Conference **3912** has the properties Conference Id **3960** and Conference Timestamp **3962**. Coordinator **3916** has the properties Coordinator Id **3964** and Coordinator Address **3966**. Attendees **3918** has the properties Attendee Id **3968** and Attendee Address **3970**. Results **3942** has the properties

Result Timestamp **3972**, Result Hash **3974**, and Result Signature **3976**. This diagram illustrates that when consensus is requested, a conference is created, and the result of that conference is basically a binary whereby consensus is affirmed or not affirmed. The whole consensus process is captured in Chronicle Record **2000**. All Users are Known **3624** and all Users are Verified **3626** as detailed in FIG. **36**. Conference Graph **2036** stores off all the information about the conference including when it is set up, who the coordinator is, who the attendees are, and the result. Because Chronicle **2100** is a system of record, at the end of Consensus by Conference **3800** in FIG. **38**, there is an immutable record of that consensus which provides Complete Traceability **3602** and Complete Transparency **3604** as detailed in FIG. **36**.

[0211] FIG. **40** is block diagram detailing the workflow for Generate Conference Coordinator **4002** which is triggered by New Chronicle Record **4000** submitted by Publisher **3502** in FIG. **35** for Consensus by Conference **3800** in FIG. **38**. Conference creation starts with the designation of a conference coordinator who is responsible for setting up and coordinating the conference. Core Modules **700** connected to Generate Conference Coordinator **4002** provide all the cross-cutting functionality for the workflow.

[0212] The first step of Generate Conference Coordinator **4002** is Create Coordinator Invitation **4004** which requires Create Coordinator Invitation Metadata **4006** comprised of Coordinator RSVP Id **4008**, Coordinator RSVP Timestamp **4010**, Coordinator RSVP Address **4012**, and Coordinator RSVP Key **4014**. Create Coordinator Invitation Metadata **4006** also interfaces with RSVP Timestamp Calculator **4016**. Coordinator RSVP Timestamp **4010** represents the window for possible coordinators to respond to the request and generates efficiencies for responding. The conference only needs one coordinator who is selected randomly and in a timely fashion. This workflow doesn't wait for all potential coordinators to respond, nor do they have to respond if they are busy working on consensus for other requests and don't see this request until after the specified date/time. RSVP Timestamp Calculator **4016** represents the functionality needed to determine the RSVP window to respond. This setting is dynamic and adjustable for maximum efficiency. Coordinator RSVP Address **4012** is the address that potential coordinators have to respond to with their RSVP. Coordinator RSVP Key **4014** is used to validate that a respondent is responding to the correct request, which eliminates potential mischief and hacking.

[0213] The next step is Add Coordinator Invitation to Queue **4018**, which links to Coordinator Invitation Queue **4020** and Coordinator Registration Service **4022** which is listening on the address that was specified in Coordinator RSVP Address **4012** for respondents who want to be the coordinator. Then it is time to determine Coordinator Invitation Event Source **4024**. The correct Category Coordinator Topic **4026** is selected, and then the invitation is added to Consensus Event Grid **3112**. Category Coordinator Event Subscription **4028** represents all the other publishers in that category who received that event. Any publisher who has a subscription to that topic and has a thread available to service the request submits Coordinator RSVP **4030**. Coordinator RSVP **4030** has a relationship to Coordinator Registration Data **4032**. A publisher on submitting their RSVP is going to submit Coordinator RSVP Id **4008** plus Coordinator RSVP Hash **4038** of Coordinator Registration Data **4032** by using Coordinator RSVP Key **4014**. If they are the first to respond where everything checks out (no hackers or bad actors), Coordinator RSVP **4030** presents them to Coordinator Registration Service **4022**.

[0214] Finally, Coordinator Registration Service **4022** responds back to Coordinator RSVP **4030** with New Chronicle Record **4000**. In one embodiment of the invention, the entire chronicle record is passed to the coordinator. In another embodiment of the invention, a URI to the chronicle record in the chronicle that resides in Publisher **3502**'s Social Media System **106** in FIG. **1** is passed to the coordinator using Chronicle System Modules **812** in FIG. **8**. Because only one coordinator is selected for each conference, if anyone else talks to Coordinator Registration Service **4022** within Coordinator RSVP Timestamp **4010**, no record or URI is passed to them. Coordinator **4040** is then returned to Publisher **3502** in FIG. **35** who initiated the consensus. This workflow also consists of Coordinator Request Retry Setting **4034** which is responsible for determining the number of retry attempts to enlist a coordinator for the conference and Coordinator Request Transient Fault Policy **4036** which is used to mitigate technical exceptions that happen during the workflow. Both generate additional efficiencies in the distributed parallel communications and help ensure the coordinator position is filled in a timely manner.

[0215] FIG. **41** is a block diagram detailing the workflow for Generate Conference Attendees **4102** which is triggered by New Chronicle Record **4000** submitted by Publisher **3502** in FIG. **35** for consensus. After Generate Conference Coordinator **4002** in FIG. **40** is complete, it is the job of Coordinator **4040** in FIG. **40** to gather attendees for the conference to determine consensus utilizing Category Conference Attendee Count **3824** in FIG. **38**. In another embodiment of the invention, Coordinator **4040** can generate sessions as well utilizing Category Conference Session Count **3826** in FIG. **38**. Core Modules **700** connected to Generate Conference Attendees **4102** provide all the cross-cutting functionality for the workflow.

[0216] The first step of Generate Conference Attendees **4102** is Create Attendee Invitation **4104** which requires Create Attendee Invitation Metadata **4106** comprised of Attendee RSVP Id **4108**, Attendee RSVP Timestamp **4110**, Attendee RSVP Address **4112**, and Attendee RSVP Key **4114**. Create Attendee Invitation Metadata **4106** also interfaces with RSVP Timestamp Calculator **4016**. Attendee RSVP Timestamp **4110** represents the window for possible attendees to respond to the request and generates efficiencies for responding. This workflow doesn't wait for all potential attendees to respond, nor do they have to respond if they are busy working on consensus for other requests and don't see this request until after the specified timestamp. RSVP Timestamp Calculator **4016** represents the functionality needed to determine the RSVP window to respond. This setting is dynamic and adjustable for maximum efficiency. Attendee RSVP Address **4112** is the address that potential attendees have to respond to with their RSVP, and Attendee RSVP Key **4114** is used to validate that a respondent is responding to the correct request, which eliminates potential mischief and hacking.

[0217] The next step is Add Attendee Invitation to Queue **4118**, which links to Attendee Invitation Queue **4120** and Attendee Registration Service **4122** which is listening for and accepting invitations to be an attendee for the confer-

ence up to Category Conference Attendee Count **3812**. Then it is time to determine Attendee Invitation Event Source **4124**. The correct Category Attendee Topic **4126** is selected, and then the invitation is added to Consensus Event Grid **3112**. Category Attendee Event Subscription **4128** represents all the other publishers in that category who received that event. Any publisher who has a subscription to that topic and has a thread available to service the request submits Attendee RSVP **4130**. Attendee RSVP **4130** has a relationship to Attendee Registration Data **4132**. Attendee Registration Data **4132** consists of Attendee RSVP Id **4108**, Attendee RSVP Hash **4138**, Attendee Id and Address **4140**, and New Chronicle Record **4000**. A publisher on submitting their RSVP is going to submit Attendee RSVP Id **4108** plus Attendee RSVP Hash **4138** of Attendee Registration Data **4132** by using Attendee RSVP Key **4114**. If they respond before Category Conference Attendee Count **3812** has been met and everything checks out (no hackers or bad actors), Attendee RSVP **4130** presents them to Attendee Registration Service **4122**.

[0218] Finally, Attendee Registration Service **4122** responds back to Attendee RSVP **4130** with New Chronicle Record **4000**. In one embodiment of the invention, the entire chronicle record is passed to the attendees. In another embodiment of the invention, a URI to the chronicle record in the chronicle that resides in Publisher **3502**'s Social Media System **106** in FIG. **1** is passed to the attendees using Chronicle System Modules **812** in FIG. **8**. If anyone else talks to Attendee Registration Service **4122** after Attendee RSVP Timestamp **4110** or after Category Conference Attendee Count **3812** has been met, no record or URI is passed to them. Attendees **4142** is then returned to Publisher **3502** in FIG. **35** who initiated the consensus. Coordinator **4040** in FIG. **40** and Attendees **4142** are both needed to determine consensus for New Chronicle Record **4000**. This workflow also consists of Attendee Request Retry Setting **4134** which is responsible for determining the number of retry attempts to enlist attendees for the conference and Attendee Request Transient Fault Policy **4136** which is used to mitigate technical exceptions that happen during the workflow. Both generate additional efficiencies in the distributed parallel communications and help ensure the attendee positions are filled in a timely manner.

[0219] FIG. **42** is a block diagram of Consensus by Conference Algorithm **4200** which illustrates a workflow for consensus. Consensus by Conference Algorithm **4200** is associated with New Chronicle Record **4000**, Chronicle System **206**, System Modules **800**, and Core Modules **700** which provide all the cross-cutting functionality required for the consensus workflow.

[0220] The first step is Generate Consensus by Conference Coordinator **4002** which yields Coordinator Results **4208**. The second step is Generate Consensus by Conference Attendees **4102** yields Attendees Results **4210**. The third step is Distributed Minimum Spanning Tree **4212** which represents the processes associated with setting up a communications network for the publisher, coordinator and attendees where nodes communicate by message passing. The fourth step is Telephone Gossip **4214** which represents the gossiping protocol utilized for consensus. It is initiated between publisher, coordinator and attendees. Telephone Gossip **4214** is associated with Publisher and Coordinator Are Listeners Only **4220**. During the process of gossip, the publisher and coordinator listen only. Graph Schema Hash Algorithm **2086** illustrates the algorithm by which the coordinator and the attendees calculate the graph hashes for New Chronicle Record **4000**. In another embodiment, the coordinator and attendees utilize Object Graph Hash Algorithm **2084** in FIG. **20** to calculate the hashes for New Chronicle Record **4000**. Graph Schema Hash Algorithm **2086** is associated with Verification Exchange **4216**.

[0221] The fifth step is Verification Exchange **4216** which illustrates that as each attendee calculates a hash for a graph in New Chronicle Record **4000**, they exchange that information utilizing Telephone Gossip **4214**. Verification Exchange **4216** is also associated with Publisher and Coordinator Are Listeners Only **4220**. The sixth step is Coordinator Confirms and Saves Results **4218** which illustrates that all of the attendees' results used to confirm the hash for each graph in New Chronicle Record **4000** are saved by the coordinator into their copy of New Chronicle Record **4000**. As Coordinator Confirms and Saves Results **4128**, if any of the calculations do not match then Disagreement **4221** is reached, and Consensus by Conference Algorithm **4200** terminates with no consensus. Coordinator Confirms and Saves Results **4218** is also associated with Publisher and Coordinator Are Listeners Only **4220**. The seventh step is Coordinator Record Hash and Record Signature **4222** which represents the steps to calculate Record Hash **2014** in FIG. **20**. The coordinator sorts the hashing results by graph name alphanumerically and then applies Merkle Tree **2082** in FIG. **20** to determine Record Hash **2014** for New Chronicle Record **4000**. In another embodiment of the invention, the coordinator also determines Record Signature **2018** which is added to New Chronicle Record **4000**. Additionally, each Base Graph Signature **2058** on FIG. **20** is also determined and added to New Chronicle Record **4000**.

[0222] At this point in the workflow process, New Chronicle Record **4000** is committed to the publisher, coordinator and attendees' Chronicle **2100** in FIG. **21**. In another embodiment of the invention, New Chronicle Record **4000** is propagated to every Social Media System **106** on Distributed Social Media Network **300** in FIG. **3**. The final step is Coordinator Sends Platform New Chronicle Record **4224** whereby the coordinator sends the platform New Chronicle Record **4000**.

[0223] FIG. **43** is a block diagram of Chronicle Workflow System Module **2438** which is comprised of Create Chronicle Record **4302**, Clone Chronicle Record **4330**, and Consensus by Conference Algorithm **4200**. Create Chronicle Record **4302** consists of Generate Record Nonce **4304**, Save Record Nonce **4306**, Calculate Graph Hashes **4308**, Save Graph Hashes **4310**, Calculate Estimated Work **4312**, and Save Estimated Work **4314**. Clone Chronicle Record **4330** consists of Copy Chronicle Record **4332**, Save Chronicle Record Clone **4334**, Confirm Clone Hashes **4336**, Calculate Estimated Work **4338**, and Save Estimated Work **4340**. Both Create Chronicle Record **4302** and Clone Chronicle Record **4330** require Estimated Work Calculation **4360** which is an algorithm to estimate the amount of work required to complete the hashing algorithms for a Chronicle Record **2000** in FIG. **20**. Chronicle Workflow System Module **2348** interacts with Core Modules **700** which provides all the cross-cutting functionality for Chronicle Workflow System Module **2348**.

[0224] FIG. **44** is a block diagram which illustrates how User **104** can Publish **4400** on Distributed Social Media Network **300** in FIG. **3**. This process differs from Post **3400**

in FIG. **34**. Published content can be edited, corrected, retracted or recanted, but never deleted. It becomes part of Permanent Public Record **3612** in FIG. **36**, audited by Public Auditors **114** and held by Public Archivists **116** in FIG. **3** outside of the network. Past versions are always visible. This type of sharing is public. While User **104** may retain ownership and all the rights associated with ownership including copyright and licensing, the content and associated metadata does not reside exclusively in their Social Media System **106** in FIG. **1**. It is published out to the distributed system and released to the public. When crafting a message to Publish **4400**, User **104** must go through a publisher they select on the network or be a publisher (see Publisher **3502** in FIG. **35**). In one embodiment of the invention, Distributed Social Media Network **300** in FIG. **3** sets limits on the number of connections User **104** can post to before User **104** must go through a publisher or become a publisher to reach a larger group of connections.

[0225] User **104** uses Social Media App(s) **110** to Publish **4400**. They have at their ability all of the App Modules **1300** and may use one, some or all of the modules in their Social Media App(s) **110**. In this example they use Message Board App Module **1330** to compose the publishable content. Once the publishable content is ready, User **104** must sign the content using Signing Core Module **724**, select Publisher **3502**, and pay any fees associated with publishing via Payment App Module **1334**. In another embodiment of the invention, Payment App Module **1334** may pull from funds already held in an account between User **104** and Publisher **3502**. Then the publishable content is sent to Social Media System **106-1** across Network(s) **108** via Publishing App Module **1338**.

[0226] Social Media System **106-1** is composed of all System Modules **800**. These system modules can all work together or stand on their own to provide functionality for Social Media System **106-1**. First the publishable content goes into Compliance System Modules **850** to ensure it conforms to the compliance rules for Publisher **3502** and the platform. Next the publishable content is stored as New Chronicle Record **4000** in FIG. **40** via Chronicle System Modules **812**. Search System Modules **840** is also associated with Social Media System **106-1**.

[0227] New Chronicle Record **4000** in FIG. **40** is then sent to Publisher **3502** across Network(s) **108** to their Social Media System **106-2** which is comprised of all System Modules **800** or some subset of system modules. When payment is received via Payment System Modules **834**, Workflow System Modules **858** is notified of the pending content item being published for User **104**. When New Chronicle Record **4000** in FIG. **40** is sent, either the entire record with all its bits, including every bit of content is transmitted, or an optimization is sent with URIs to content bits. The workflow upon receiving New Chronicle Record **4000** in FIG. **40** determines if it has the content, and if it doesn't, it goes and gets the content via the URIs. Once the content is received and verified by Workflow System Modules **858**, Compliance System Modules **850** verifies that the content meets Publisher **3502**'s compliance rules. Workflow System Modules **858** then either accepts the content for the next steps of the workflow or rejects the content. Alternately content may be flagged for review. In some cases, the content will need to be manually inspected by Publisher **3502**.

[0228] Workflow System Modules **858** may also invoke other system modules as part of the workflow to publish the content. Content may be submitted to AI System Modules **804** or Machine Learning System Modules **828** in FIG. **8** for analysis. Content may be submitted to Licensing System Modules **826** in FIG. **8** for content that is determined to be licensed. Content may be submitted to Third Party System Modules **844** in FIG. **8** where additional attribution or data transformations can be applied to Content Graph **2024**, such as Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922**, and Catalog **2924** in FIG. **29**. Additionally, other content properties may be set by Workflow System Modules **858**, including Distribution Release Timestamp **2954**, Public Release Timestamp **2956**, Audit Release Timestamp **2958**, and Archive Release Timestamp **2960** in FIG. **29**. When the content is complete, New Chronicle Record **4000** in FIG. **40** is then submitted to Chronicle System Modules **812** and specifically Chronicle Workflow System Module **2438** in FIG. **24** for consensus using Consensus by Conference Algorithm **4200** in FIG. **42**.

[0229] When consensus is complete, New Chronicle Record **4000** in FIG. **40** is either accepted or rejected. If accepted, it is saved to Chronicle System Module **812**. If rejected, a rejection notice is sent back to User **104**. Once saved, New Chronicle Record **4000** in FIG. **40** goes to Publishing System Modules **838** for final checks. Then it goes to Distribution System Modules **820** and is placed in Distribution Event Grid Module **3102**. Distribution occurs over Network(s) **108** with Distribution Event Grid **3104** in FIG. **31**. In another embodiment of the invention, User **104**-N can request chronicle records from Publisher **3502** automatically through their Social Media App(s) **110**-N as a refresh via a setting within Message Board App Module **1330**. When published content gets committed to Chronicle **2100** in FIG. **21**, it is distributed out to Distributed Social Media Network **300** in FIG. **3**. Chronicle Platform System Modules **1608** stores New Chronicle Record **4000** from FIG. **40** in the platform chronicle. It also monitors Audit Release Timestamp **2958** and Archive Release Timestamp **2960** in FIG. **29**, so that when Publisher **3502** says New Chronicle Record **4000** in FIG. **40** can be released to audit or archive, it can either be sent or picked up via the Audit System Modules **810** and the Archive System Modules **808** in FIG. **8**. Core Modules **700** provide all the cross-cutting functionality for all Social Media App(s) **110** and all Social Media Systems **106** and their associated App Modules **1300**, System Modules **800**, Platform System Modules **1600** required to Publish **4400**.

[0230] Distributed Architecture **100** in FIG. **1** and these unique publishing features provide the opportunity to address the problem of fake news in ways that centralized social media networks cannot. User **104** does not have the ability to publish to the public network without the content being vetted. Every Publisher **3502** is responsible for the content that is published through their Social Media System **106**. There is an inherent financial incentive for the publisher to vet the content, because if the content is incorrect, has some negative social impact, or does not meet community or journalistic standards, then the publisher incurs the cost by association. Because Distributed Social Media Network **300** in FIG. **3** is made up of a multitude of independent publishers, vetting can be done efficiently and effectively at scale. Because all Users are Known **3604**, all Users are Verified **3626**, and all published content becomes part of

Permanent Public Record **3612** in FIG. **36**, there is no wondering where it came from, what happened during the publishing workflow, plus any state changes, which provides Complete Visibility **3602** and Complete Traceability **3604** in FIG. **36**. The net result is a level of transparency and accountability about published content that is not possible in the existing paradigm. Publishers provide a valuable service to the platform and its tenet that Integrity is the Currency **3608** in FIG. **36**. They also help ensure the primacy of Chronicle **2100** in FIG. **21** as an institution.

[0231] Distributed Social Media Network **300** in FIG. **3** allows for many different publishing use cases, many of which involve financial transactions. Any number of financial clearing types can be used to clear these transactions, including credit cards, ACH, PayPal, public cryptocurrencies like Bitcoin, or a private cryptocurrency created by the network. In one embodiment of the invention, Publisher **3502** publishes content they have designated premium. Money is paid to the publisher by User **104** if they are connected and want to receive the premium content.

[0232] In another embodiment of the invention, User **104** publishes Notifications **3728** or Announcements **3702** in FIG. **37**. Money is paid to the selected publisher, unless User **104** is a government agency or elected official. With various embodiments of the present technology, government data can now be recorded with decentralized authorities at the local, state and national level. Distributed Social Media Network **300** in FIG. **3** will be able to describe what government is outside of government itself and save the data out for public consumption within the context of social media. This makes government more accessible and accountable as Announcements **3702** and Notifications **3728** are now part of Permanent Public Record **3612** in FIG. **36**.

[0233] In another embodiment of the invention, User **104** publishes Rhetoric **3736** in FIG. **37** in response to published content, and money is paid to the selected publisher. Publisher **3502** (and AI) moderates this content, following established ground rules for constructive and civil dialog.

[0234] In another embodiment of the invention, User **104** submits content such as News **3726** or Features **3722** in FIG. **37** for publication by a selected publisher. If accepted, money is paid to User **104** by Publisher **3502**.

[0235] In another embodiment of the invention, User **104** places Classified Ads **3716** in FIG. **37** by selecting a publisher based on location or subject who vets the ad and facilitates the placement. Distributed Social Media Network **300** in FIG. **3** makes the transaction possible with financial clearing touchpoints via email and a workflow that will not distribute the ad until confirmation of payment. It also facilitates the use of smart contracts to initialize a transaction between two users on the network within the ad itself.

[0236] In another embodiment of the invention, User **104** and Publisher **3502** go back and forth about denials, edits, etc. to content submitted for publishing. There is no exchange of money during these transactions, but there is a protocol where both sides track the data. Validation and agreement is required at every step, and if both parties agree, the contract is good.

[0237] In another embodiment of the invention, User **104** purchases video or music (Medium Based **3724** in FIG. **37**) from Publisher **3502**. A transaction ID, plus copyright and owner, is injected into the content, and a hash is used to create dynamic encryption. Digital rights become public, instead of stored in a centralized database, and form a searchable repository of who owns what hashes. User **104** must own the rights to a song or a movie to be able to play it. No one else will be able to access (or hack) the file.

[0238] In another embodiment of the invention, User **104** publishes an academic paper (Other **3744** in FIG. **37**) and makes it available for peer review with specified rules, thereby providing accountability and accelerating an oftentimes lengthy review process.

[0239] Consistent with creating a Level Playing Field **3610** in FIG. **36**, Publisher **3502** keeps any subscription, publishing or advertising fees generated from these publishing use cases. The platform takes a small transaction fee for facilitating the financial transactions with User **104**. Profit for few in the existing centralized social media paradigm become profit for many on Distributed Social Media Network **300** in FIG. **3** as publishers are paid for their content and advertising dollars are distributed across a wide range of media properties.

[0240] Note that published content is read only by default. User **104** and Publisher **3502** can then determine additional user rights, such as post comment to connections, publish rhetoric to permanent public record, re-share as a post to connections, download, or print. Distributed Social Media Network **300** in FIG. **3** allows for ways to maintain publisher exclusivity and may also have different rights for publishers or businesses that want to group or share content for publication on the network.

[0241] FIG. **45** is a block diagram of Connections and Groups **4500** which illustrates the connections and groups functionality of the platform. User **104** uses Social Media App(s) **110** to work with Message Board App Module **1330**, Directory App Module **1318**, and Chronicle App Module **1312**. Social Media App(s) **110** connects to Social Media System **106** via Network(s) **108**. Social Media System **106** for User **104** connects to Chronicle System Modules **812** and Directory System Modules **818**. Directory System Modules **818** interfaces with Contact Directory System Modules **2804** and Group Directory System Module **2820**. Social Media App(s) **110** and Social Media System **106** also connect via Network(s) **108** to Directory System **208** and Chronicle System **206** as well as any Platform Systems **102**. Directory System **208** utilizes Directory Platform System Modules **1610**. Chronicle System **206** utilizes Chronicle Platform System Modules **1608**. Chronicle **2100** represents the use of the chronicle and any Chronicle Record **2000**, Directory Graph **2500**, and Site Graph **2030** that Social Media System **106**, Social Media App(s) **110**, and Platform Systems **102** may interact with. Group Directory System Module **2820** enables User **104** to work with Directory Graph **2034** and Group **2520** node in FIG. **25**. Using Group Directory System Module **2820**, User **104** can create groups in Group **2520** node in FIG. **25**. User **104** may also use Contact Directory System Module **2804** to establish contact with other users in Directory System **208**. Contact Directory System Module **2804** can also be used to facilitate connection requests that other users may have for User **104**. Core Modules **700** are used for any cross-cutting concerns across Social Media App(s) **110**, Social Media System **106**, Platform Systems **102**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all functionality specific to Connections and Groups **4500**.

[0242] This diagram illustrates how User **104** works with the directory to make connections and create groups. User **104** makes connections with other users that they want to

interact with on Distributed Social Media Network **300** in FIG. **3**, either by extending or accepting an invitation to connect. User **104** can place these connections in groups that may include one, few, many or all of their connections, such as spouse group, family group, best friends group, church group, co-worker group, customer group, subscriber group, etc. These groups are then used to designate recipients of a message when User **104** wants to Post **3400** in FIG. **34** or Publish **4400** in FIG. **44**.

[0243] FIG. **46** is a block diagram of Identity **4600** which illustrates the identity functionality of the platform. User **104** uses Social Media App(s) **110** to work with Message Board App Modules **1330**, Directory App Module **1318**, Chronicle App Module **1312**, and Identity App Module **1322**. Social Media App(s) **110** connects to Social Media System **106** via Network(s) **108**. Social Media System **106** for User **104** utilizes Identity System Modules **822**, Chronicle System Modules **812**, and Directory System Modules **818**. Directory System Modules **818** interfaces with Contact Directory System Module **2804** and Group Directory System Module **2820**. Social Media App(s) **110** and Social Media System **106** also connect via Network(s) **108** to Identity System **210**, Directory System **208**, and Chronicle System **206** as well as any Platform Systems **102**. Identity System **210** utilizes Identity Platform System Modules **1612**. Directory System **208** utilizes Directory Platform System Modules **1610**. Chronicle System **206** utilizes Chronicle Platform System Modules **1608**. Chronicle **2100** represents the use of the chronicle and any Chronicle Record **2000**, Directory Graph **2500**, and Site Graph **2030** that Social Media System **106**, Social Media App(s) **110**, and Platform Systems **102** may interact with. Core Modules **700** are used for any cross-cutting concerns across Social Media App(s) **110**, Social Media System **106**, Platform Systems **102**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all functionality specific to Identity **4600**.

[0244] This diagram illustrates that Identity System **210** and its utilization of Identity Platform System Modules **1612** is distinct and separate from Directory System **208** and its utilization of Directory Platform System Modules **1610**. Identity System **210** and Identity Platform System Modules **1612** are responsible for authentication and authorization of all users, systems, and apps as well as the interconnections of Platform Systems **102**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600**.

[0245] FIG. **47** is a block diagram of Data Analysis **4700** which illustrates the data analysis functionality of the platform. User **104** utilizes Social Media App(s) **110** to work with Chronicle App Module **1312**, AI App Module **1304**, Third Party App Modules **1344**, Analytics App Module **1306**, and Machine Learning App Module **1328**. Social Media App(s) **110** connects to Social Media System **106** via Network(s) **108**. Social Media System **106** for User **104** utilizes Machine Learning System Modules **828**, Third Party System Modules **844**, Analytics System Modules **806**, AI System Modules **804**, and Chronicle System Modules **812**. Social Media System **106** and Social Media App(s) **110** also connect via Network(s) **108** to AI System **236**, Machine Learning System **240**, Analytics System **238**, Third Party Systems **222**, and Chronicle Systems **206** as well as any Platform Systems **102**. AI System **236** utilizes AI Platform System Modules **1638**. Machine Learning System **240** utilizes Machine Learning Platform System Modules **1642**. Analytics System **238** utilizes Analytics Platform System Modules **1640**. Third Party Systems **222** utilizes Third Party Platform System Modules **1624**. Chronicle System **206** utilizes Chronicle Platform System Modules **1608**. Social Media System **106**, Social Media App(s) **110**, and Platform Systems **102** may interact with Chronicle **2100**, Chronicle Record **2000**, Content Graph **2024**, and Publishable Content Types **3700** for data analysis. Additionally, Content Graph **2024** illustrates that Content **2912**, License **2914**, Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922** and Catalog **2924** nodes in FIG. **29** can also be included in data analysis. Core Modules **700** are used for any cross-cutting concerns across Social Media App(s) **110**, Social Media System **106**, Platform Systems **102**, App Modules **1300**, System Modules **800**, Platform System Modules **1600**, as well as all functionality specific to Data Analysis **4700**.

[0246] FIG. **48** is a block diagram of Trending **4800** which illustrates the trending functionality of the platform. Social Media System **106-1** for User **104-1** utilizes Analytics System Modules **806** and Chronicle System Modules **812** to generate Publisher Trending **4802-1**, Hashtag Trending **4804-1**, and Mention Trending **4806-1**. Social Media System **106-2** for User **104-2** utilizes Analytics System Modules **806** and Chronicle System Modules **812** to generate Publisher Trending **4802-2**, Hashtag Trending **4804-2**, and Mention Trending **4806-2**. Social Media System **106**-N for User **104**-N utilizes Analytics System Modules **806** and Chronicle System Modules **812** to generate Publisher Trending **4802**-N, Hashtag Trending **4804**-N, and Mention Trending **4806**-N. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. Social Media System **106-1** to Social Media System **106**-N connects to Platform Systems **102** via Network (s) **108**. Platform Systems **102** utilizes Analytics System **238** and Chronicle System **206** to generate Publisher Trending **4802**, Hashtag Trending **4804**, and Mention Trending **4806**. Social Media System **106-1** to Social Media System **106**-N and Platform Systems **102** may interact with Chronicle **2100**, Chronicle Record **2000**, Content Graph **2024** and Publishable Content Types **3700** for trending. Additionally, Content Graph **2024** illustrates that Content **2912**, License **2914**, Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922** and Catalog **2924** nodes in FIG. **29** can also be included in trending. Core Modules **700** are used for any cross-cutting concerns for Social Media System **106-1** to Social Media System **106**-N, Platform Systems **102**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all trending functionality.

[0247] Given the distributed nature of the platform, every Social Media System **106** in FIG. **1** is able to generate its own trending data, allowing for unique trending that is bottom up. All published content and their related Publishable Content Types **3700** can be used for trending analysis as well as the location of Social Media System **106** and any relevant metadata about Social Media System **106**'s content. This approach is superior to current approaches because the algorithms that centralized social media networks utilize to determine content distribution skew the user's knowledge of and interaction with the content that the algorithms display to them as well as the content that is not displayed to them. Distributed Social Media Network **300** in FIG. **3** enables users to view all of the content from all social media systems

that they have a connection with, therefore users see all the content and have a choice about what content they want to interact with. This provides for a much more accurate trending analysis. Furthermore, since trending can be aggregated by combining trends from all social media systems in Distributed Social Media Network **300** in FIG. **3**, the inherent flaw of trending feedback loop in existing trending technologies is mitigated. Current social media networks have demonstrated a bias in promoting trends that propagate "right" think and punish "wrong" think. They also use trending to suppress freedom of speech. With Trending **4800**, a true representation of user interaction with content is captured, and Chronicle **2100** in FIG. **21** ensures Complete Transparency **3604** in FIG. **36**.

[0248] FIG. **49** is a block diagram of Audit and Archive **4900** which illustrates the audit and archive functionality of the platform. Social Media System **106-1** for User **104-1** utilizes Archive System Modules **808**, Audit System Modules **810**, and Chronicle System Modules **812**. Social Media System **106-2** for User **104-2** utilizes Archive System Modules **808**, Audit System Modules **810**, and Chronicle System Modules **812**. Social Media System **106**-N for User **104**-N utilizes Archive System Modules **808**, Audit System Modules **810**, and Chronicle System Modules **812**. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network which connect via Network(s) **108**. Social Media System **106-1** to Social Media System **106**-N also connect to Platform Systems **102**, Public Auditors **114**, and Public Archivists **116** via Network (s) **108**. Platform Systems **102** utilizes Audit System **204**, Archive System **202**, and Chronicle System **206**. Social Media System **106-1** to Social Media System **106**-N and Platform Systems **102** may interact with Chronicle **2100** which contains Chronicle Record **2000** and Content Graph Collection **2908** for auditing and archiving. They also interact with Content **2912** which contains the properties Public Release Timestamp **2956**, Audit Release Timestamp **2958**, and Archive Release Timestamp **2960**. Core Modules **700** are used for any cross-cutting concerns for Social Media System **106-1** to Social Media System **106**-N, Platform Systems **102**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600**, as well as all interactions and functionality with Public Auditors **114** and Public Archivists **116**.

[0249] Public Release Timestamp **2956**, Audit Release Timestamp **2958**, and Archive Release Timestamp **2960** are critical to this workflow because they are used to determine when content is released to public, released for auditing, and released for archiving by Platform Systems **102** via Audit System **204** and Archive System **202** as well as by Social Media System **106-1** to Social Media System **106**-N via Audit System Modules **810** and Archive System Modules **808**. When content is released to public, all social media systems on Distributed Social Media Network **300** in FIG. **3** have access to the content. When content is released for audit, Public Auditors **114** can audit the content. When content is released for archive, Public Archivists **116** can archive the content.

[0250] During a public audit, each Chronicle Record **2000** and its Content Graph Collection **2908** are inspected and hashing calculations are verified. Since each Chronicle Record **2000** is fully traceable, all users associated with the content plus all additions and changes to the content are known. The calculated hashes contained therein lend immutability to each of the graphs and each property of the record. Published content is also released to Public Archivists **116**, such as governments, libraries, and religious organizations that used to be the keepers of important public information before the digital revolution. This creates a permanency to all content that is published on Distributed Social Media Network **300** in FIG. **3**.

[0251] These unique features of embodiments of the present technology illustrate how Chronicle **2100** in FIG. **21** is a source of record which can be used to instill integrity of data within the public trust. Published content that is traceable and immutable, confirmed by Public Auditors **114** and stored permanently with Public Archivists **116** outside of the platform, creates a level of transparency and accountability that is not possible with current social media networks.

[0252] FIG. **50** is a block diagram of Chronicle Record **2000** which is comprised of Certified Email Graph **5000**. Certified Email Graph **5000**, which descends from Base Graph **2050** in FIG. **20**, consists of Certified Email Graph Schema **5002**, Certified Email Graph Schema Version **5004**, Certified Email Graph Hash **5006**, and Certified Email Graph Signature **5008**. It also consists of Certified Email Graph Collection **5010** which contains Node(s) **5012** and Edge(s) **5040**. Node(s) **5012** consists of Certified Email **5014**. Certified Email **5014** has the properties Certified Email Id **5060**, Certified Email Timestamp **5062**, Email Timestamp **5064**, Email From Address **5066**, Email To Address **5068**, Email CC Address **5070**, Email Message **5072**, Certified Email Key **5074**, Email Hash **5076**, and Certified Email Verified **5078**. This diagram illustrates that email certification exists within Chronicle Record **2000**.

[0253] FIG. **51** is a block diagram of Certified Email **5100** which illustrates the certified email functionality of the platform, specifically certifying the authenticity of an email from one user to another. Certified Email **5100** is comprised of Chronicle **2100** which contains Chronicle Record **2000** which consists of Certified Email Graph **5000** which contains Certified Email **5014**. It is also comprised of Certified Data **5102** which contains Certified Email Id **5060** and Certified Email Hash **5108** as well as Core Modules **700** which provides all the cross-cutting functionality for Certified Email **5100**. Social Media App(s) **110-1** for User **104-1** utilizes Message Board App Module **1330**, Payment App Module **1334**, and Certified Email App Module **1356**. Certified Email App Module **1356** utilizes Certified Data **5102** and Email Message **5072**. Email Message **5072** is associated to Source SMTP Server **5104** which is connected to Destination SMTP Server **5106** which is associated to Certified Data **5102**. Social Media System **106-1** for User **104-1** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Certified Email System Modules **856**. Certified Email System Modules **856** utilizes Certified Data **5102**. Social Media System **106** for Publisher **3502** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Certified Email System Modules **856**. Certified Email System Modules **856** utilizes Certified Data **5102** and Publisher Certified Email Address **5110**. User **104-1**'s Social Media App(s) **110-1** and Social Media System **106-1** interface with Publisher **3502**'s Social Media System **106**, Source SMTP Server **5104**, and Destination SMTP Server **5106** via Network(s) **108**.

[0254] User **104-1** uses their Social Media App(s) **110-1** and its connected Payment App Module **1334** and Certified

Email App Module **1356** to arrange payment via Publisher **3502**'s Social Media System **106** and its connected Payment System Modules **834** and Certified Email System Modules **856**. Once payment is arranged, Certified Email System Modules **856** generates Certified Email **5014** containing Certified Email Id **5060** in FIG. **50**, Certified Email Timestamp **5062** in FIG. **50**, and Email Timestamp **5064** in FIG. **50**. Then it creates Certified Data **5102** with Certified Email Id **5060** in FIG. **50** and calculates Certified Email Hash **5108** of Certified Email Id **5060** in FIG. **50**, Certified Email Timestamp **5062** in FIG. **50**, and Email Timestamp **5074** in FIG. **50**. Certified Email System Modules **856** then sends Certified Email **5014** back to User **104-1** with Publisher Certified Email Address **5110**. User **104-1** then takes Certified Data **5102** and appends it to Email Message **5072**. User **104-1** adds Publisher Certified Email Address **5110** to the cc: or bcc: address of Email Message **5072** which is then sent to the destination email address(s) via the associated Source SMTP Server **5104** to Destination SMTP Server **5106**. Publisher **3502**'s Certified Email System Modules **856** upon receiving the email, adds the email timestamp to Email Timestamp **5064** in FIG. **50**, any email to addresses to Email To Address **5068** in FIG. **50**, the email from address to Email From Address **5066** in FIG. **50**, and any email cc: addresses to Email CC Address **5070** in FIG. **50**. The email message data is added to Email Message **5072**. Certified Email Graph **5000** and its associated Chronicle Record **2000** on FIG. **50** are then submitted for Consensus by Conference **3800** in FIG. **38** and added to Chronicle **2100**.

[0255] FIG. **52** is a block diagram of Chronicle Record **2000** which is comprised of Notary Graph **5200**. Notary Graph **5200**, which descends from Base Graph **2050** in FIG. **20**, consists of Notary Graph Schema **5202**, Notary Graph Schema Version **5204**, Notary Graph Hash **5206**, and Notary Graph Signature **5208**. Notary Graph **2500** also consists of Notary Graph Collection **5210** which contains Node(s) **5212** and Edge(s) **5240**. Node(s) **5212** consists of Notary **5214**. Notary **5214** has the properties Notary Id **5260**, Notary Timestamp **5262**, Email Timestamp **5064**, First Party Email Address **5266**, Second Party Email Address **5268**, Email CC Address **5070**, Email Message **5072**, and Notary Key **5274**. This diagram illustrates that a notarized transaction exists within Chronicle Record **2000**.

[0256] FIG. **53** is a block diagram of Notary Email **5300** which illustrates the notary services functionality of the platform. User **104-1** and User **104-2** are entering into an agreement and need the use of a notary service. Because chronicle records are immutable, traceable and part of the permanent public record, publishers can perform notary services over email. In one embodiment of the invention, the data is encrypted and not available for public access. In another embodiment of the invention, the data is not encrypted and available for public auditing and archiving.

[0257] Notary Email **5300** is comprised of Chronicle **2100** which contains Chronicle Record **2000** which consists of Notary Graph **5200** which contains the node Notary **5214**. Notary Email **5300** is also comprised of Notary Data **5302** which contains Notary Id **5260** and Notary Email Hash **5310** as well as Core Modules **700** which provides all the cross-cutting functionality for Notary Email **5300**. Social Media App(s) **110-1** for User **104-1** utilizes Message Board App Module **1330**, Payment App Module **1334**, and Notary App Module **1354**. Notary App Module **1354** utilizes Notary Data **5302** which is associated to transitional element **5308** which is associated to Email Message **5072**. Email Message **5072** is associated to Source SMTP Server **5304** which is connected to Destination SMTP Server **5306** which is associated to Notary Data **5302**. Social Media App(s) **110-2** for User **104-2** utilizes Message Board App Module **1330**, Payment App Module **1334**, and Notary App Module **1354**. Notary App Module **1354** utilizes Notary Data **5302** which is associated to Email Message **5072**. Email Message **5072** is associated to Source SMTP Server **5304** which is connected to Destination SMTP Server **5306** which is associated to Notary Data **5302**. Social Media System **106** for Publisher **3502** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Notary System Modules **854**. Notary System Modules **854** utilizes Notary Data **5302** and Publisher Notary Email Address **5312**. User **104-1**'s Social Media App(s) **110-1** and User **104-2**'s Social Media App(s) **110-2** interface with Publisher **3502**'s Social Media System **106**, Source SMTP Server **5104**, and Destination SMTP Server **5106** via Network(s) **108**.

[0258] User **104-1** utilizes Payment App Module **1334** and Notary App Module **1354** to arrange payment with Publisher **3502** which utilizes Payment System Modules **834** and Notary System Modules **854**. After payment is made, User **104-1** uses Notary App Module **1354** to submit First Party Email Address **5266** in FIG. **52** and Second Party Email Address **5268** in FIG. **52** to Publisher **3502** via Notary System Modules **854**. Notary System Modules **854** then generates Chronicle Record **2000**, Notary Graph **5200**, and Notary **5214** consisting of Notary Id **5260** in FIG. **52**, Notary Timestamp **5262** in FIG. **52**, and Notary Key **5274** in FIG. **52**. It also generates Notary Email Hash **5310**. Notary Data **5302** containing Notary Id **5260** and Notary Email Hash **5310** along with Publisher Notary Email Address **5312** is sent back to User **104-1**'s Notary App Module **1354**. User **104-1** then takes Notary Data **5302** and appends Email Message **5072** via **5308**. Email Message **5072** contains the content of the email and any associated attachments such as executed documents. User **104-1** ensures that the "from" address on the email message is First Party Email Address **5266** in FIG. **52**. User **104-1** puts Second Party Email Address **5268** in FIG. **52** into the "to" address on the email message and Publisher Notary Email Address **5312** into Email CC Address **5070** in FIG. **50**. The email is then sent via Source SMTP Server **5304** to Destination Server **5306** along with Notary Data **5302** appended to Email Message **5072**. Publisher **3502** upon receiving Email Message **5072** then appends the email message data and attachments to Email Message **5072**.

[0259] Publisher **3502** then submits Chronicle Record **2000** containing Notary Graph **5200** with the completed Notary **5214** node to Consensus by Conference **3800** in FIG. **38**. Upon consensus, the first party and second party are both notified of the first party's notarization via Notary App Module **1354** or by email. Upon receiving the email confirming the notarization of the first party's content from Publisher **3502**, the second party arranges payment and proceeds to notarize their executed documents through the same process utilized by User **104-1** for notarization. After consensus is reached for User **104-2**'s Chronicle Record **2000**, then the first party and second party are sent confirmation of notarization by Publisher **3502** and the process is complete. Chronicle **2100** contains two Chronicle Record **2000**, one for the first party and one for the second party as evidence of the notarization.

[0260] FIG. **54** is a block diagram of Chronicle Record **2000** which is comprised of Rhetoric Graph **5400**. Rhetoric Graph **5400**, which descends from Base Graph **2050** in FIG. **20**, consists of Rhetoric Graph Schema **5402**, Rhetoric Graph Schema Version **5404**, Rhetoric Graph Hash **5406**, and Rhetoric Graph Signature **5408**. It also consists of Rhetoric Graph Collection **5410** which contains Node(s) **5412** and Edge(s) **5440**. Node(s) **5412** consists of Rhetoric **5414**, Debate **5416**, Participant **5418**, Judge **5420**, and Prize **5422**. Edge(s) **5440** consists of Score **5442** and Award **5444**. Rhetoric **5414** consists of Rhetoric Id **5460**, Rhetoric Timestamp **5462**, Ethos **5464**, Pathos **5466**, and Logos **5468**. Debate **5416** consists of Debate Id **5470**, Debate Timestamp **5472**, Past **5474**, Present **5476**, and Future **5478**. This diagram illustrates that rhetoric exists within Chronicle Record **2000**.

[0261] FIG. **55** is a block diagram of Rhetoric System Modules **864** which is comprised of Rhetoric System Module **5500**, Debate System Module **5502**, Participant System Module **5504**, Judge System Module **5506**, Prize System Module **5508**, Score System Module **5510**, and Award System Module **5512**. These system modules represent the functionality required for Social Media System **106** in FIG. **1** to work with a rhetoric data set which consists of Chronicle Record **2000** along with Rhetoric Graph **5400**, State Graph **2030** and Content Graph **2024** inside Chronicle **2100**. All new rhetoric is stored in Chronicle Record **2000**, specifically in Rhetoric Graph **5400**, which is able to track state via State Graph **2030** and is associated to Content Graph **2024**. Rhetoric System Modules **864** also interacts with Core Modules **700** which provides all the cross-cutting functionality for Rhetoric System Modules **864**.

[0262] FIG. **56** is a block diagram of Rhetoric **5600** which illustrates the rhetoric functionality of the platform. User **104** in FIG. **1** has two options for responding to published content on Distributed Social Media Network **300** in FIG. **3**. They can post comments to their connections and groups via Post **3400** in FIG. **34**. This type of response is informal and can be deleted since the comments reside exclusively on User **104**'s Social Media System **106** in FIG. **1**. User **104** can also respond to published content by publishing Rhetoric **3736** in FIG. **37**. This type of response is formal and can be recanted, but not deleted, as it becomes part of the permanent public record. Rhetoric must inform, persuade or motivate in a civil manner. No shit posting or trolling is allowed. Rhetoric is managed by publishers, which creates economies of scale and distributed monitoring at the micro level. This stands in stark contrast to what exists with centralized social media networks, namely ineffective use of AI, bots and cubicles full of millennials trying to monitor speech at the macro level.

[0263] Rhetoric **5600** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Rhetoric Graph **5400**, State Graph **2030** and Content Graph **2024**. User **104-1** has Social Media App(s) **110-1** which utilizes Message Board App Module **1330**, Payment App Module **1334**, and Rhetoric App Module **1364**. User **104-2** has Social Media App(s) **110-2** which utilizes Message Board App Module **1330**, Payment App Module **1334**, and Rhetoric App Module **1364**. User **104**-N has Social Media App(s) **110**-N which utilizes Message Board App Module **1330**, Payment App Module **1334**, and Rhetoric App Module **1364**. The ellipse Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media apps for every user on the network. Social Media App(s) **110-1**, Social Media App(s) **110-2**, and Social Media App(s) **110**-N connect to Social Media System **106** for Publisher **3502** via Network(s) **108**. Social Media System **106** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Rhetoric System Modules **864**. Rhetoric **5600** is also comprised of Core Modules **700** which is used for any cross-cutting concerns across for Social Media App(s) **110-1** to Social Media App(s) **110**-N, Social Media System **106**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all rhetoric functionality.

[0264] This diagram illustrates how User **104-1** to User **104**-N to can connect to Publisher **3502**'s Social Media System **106** to engage in rhetoric or debate that becomes part of the permanent public record via Chronicle **2100**. Publisher **3502** may or may not charge users to participate. The intention is to create a structure for civil discourse and further solve the problem of fake news in a unique way. Users have the opportunity to express points and counterpoints as well as actually document their points and counterpoints as part of their participation. All rhetoric is vetted by Publisher **3502** as part of Publish **4400** in FIG. **44**, so sources matter. Users are not able to just throw out unsupported or unsubstantiated information. In another embodiment of the invention, Publisher **3502** can utilize gamification features and introduce Judge **5420**, Prize **5422**, Scoring **5442** and Awards **5444** in FIG. **54**.

[0265] FIG. **57** is a block diagram of Chronicle Record **2000** which is comprised of Subscription Graph **5700**. Subscription Graph **5700**, which descends from Base Graph **2050** in FIG. **20**, consists of Subscription Graph Schema **5702**, Subscription Graph Schema Version **5704**, Subscription Graph Hash **5706**, and Subscription Graph Signature **5708**. It also consists of Subscription Graph Collection **5710** which contains Node(s) **5712** and Edge(s) **5740**. Node(s) **5712** consists of Subscription **5714**, Subscription Pricing **5716**, Subscription Payment **5718**, Content **2912**, and License **2914**. Edge(s) **5740** consists of Subscribes To **5742**. This diagram illustrates that subscriptions exist within Chronicle Record **2000**.

[0266] FIG. **58** is a block diagram of Subscription System Modules **842** which is comprised of Subscription System Module **5800** and Pricing System Module **5802**. These system modules represent the functionality required for Social Media System **106** in FIG. **1** to work with a subscription data set which consists of Chronicle Record **2000** along with Subscription Graph **5700**, Content Graph **2024**, and State Graph **2030** inside Chronicle **2100**. All new subscriptions are stored in Chronicle Record **2000**, specifically in Subscription Graph **2500**, which is able to track state via State Graph **2030** and is associated to Content Graph **2024**. Subscription System Modules **842** also interacts with Core Modules **700** which provides all the cross-cutting functionality for Subscription System Modules **842**.

[0267] FIG. **59** is a block diagram of Subscription **5900** which illustrates the subscription functionality of the platform. Subscription **5900** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Subscription Graph **5700**, Directory Graph **2034**, and State Graph **2030**. User **104-1** has Social Media App(s) **110-1** which utilizes Message Board App Module **1330**, Payment App Module **1334**, Subscription App Module **1342**, and Account App Module **1370**. User **104-2** has Social Media

App(s) **110-2** which utilizes Message Board App Module **1330**, Payment App Module **1334**, Subscription App Module **1342**, and Account App Module **1370**. User **104**-N has Social Media App(s) **110**-N which utilizes Message Board App Module **1330**, Payment App Module **1334**, Subscription App Module **1342**, and Account App Module **1370**. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media apps for every user on the network. Social Media App(s) **110-1**, Social Media App(s) **110-2**, and Social Media App(s) **110**-N connect to Social Media System **106** for Publisher **3502** via Network(s) **108**. Social Media System **106** utilizes Chronicle System Modules **812**, Payment System Modules **834**, Subscriptions System Modules **842**, Directory System Modules **818**, Account System Modules **870**, and Connection System Modules **814**. Subscription **5900** is also comprised of Core Modules **700** which are used for any cross-cutting concerns across Social Media App(s) **110-1** to Social Media App(s) **110**-N, Social Media System **106**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all subscription functionality.

[0268] Social Media App(s) **110-1** for User **104-1** utilizes Message Board App Module **3404**, Payment App Module **1334**, and Subscription App Module **1342**. Subscription App Module **1342** interfaces with Subscription System Modules **842** which provides subscription options and their prices to User **104-1** for Publisher **3502**. If User **104-1** decides they want a subscription, then Payment App Module **1334** interfaces with Payment System Modules **834** to make a payment to Publisher **3502**. Once payment is made, then Subscription System Modules **842** associates User **104-1** with access to paid content. The same goes for User **110-2** to User **110**-N.

[0269] This diagram illustrates that publishers can publish both free and paid content on Distributed Social Media Network **300** in FIG. **3**. The platform provides a way for them to offer and manage subscriptions, consistent with Level Playing Field **3610** and Users Get Paid for their Content **3628** in FIG. **36**. Struggling independent news organizations or content providers can actually run a business on the platform as they now have the technical infrastructure and support necessary to compete with centralized social media networks. This diagram also illustrates that not all chronicles have to go out to the public domain. They can be used for managing aspects of business functionality, like subscriptions, where a publisher needs to have a source of record.

[0270] FIG. **60** is a block diagram of Chronicle Record **2000** which is comprised of Connection Graph **6000**. Connection Graph **6000**, which descends from Base Graph **2050** in FIG. **20**, consists of Connection Graph Schema **6002**, Connection Graph Schema Version **6004**, Connection Graph Hash **6006**, and Connection Graph Signature **6008**. It also has Connection Graph Collection **6010** which contains Node(s) **6012** and Edge(s) **6040**. Node(s) **6012** consists of Connection **6014** and Group **6016**. Edge(s) **6040** consists of Member of **6042**. This diagram illustrates that connections exist within Chronicle Record **2000**.

[0271] FIG. **61** is a block diagram of Connection System Modules **814** which is comprised of Connection System Module **6100**. This system module represents the functionality required for Social Media System **106** in FIG. **1** to work with a connection data set which consists of Chronicle Record **2000** along with Connection Graph **6000**, Directory Graph **2034**, and State Graph **2030** inside Chronicle **2100**. All new connections are stored in Chronicle Record **2000**, specifically in Connection Graph **2500**, which is able to track state via State Graph **2030** and is associated to Directory Graph **2034**. Connection System Modules **814** also interacts with Core Modules **700** which provides all the cross-cutting functionality for Connection System Modules **814**.

[0272] FIG. **62** is a block diagram of Connection **6200** which illustrates the connection functionality of the platform. Connection **6200** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Connection Graph **6000**, Directory Graph **2034**, and State Graph **2030**. User **104-1** has Social Media App(s) **110-1** which utilizes Message Board App Module **1330**, Directory App Module **1318**, and Connection App Module **1314**. User **104-2** has Social Media App(s) **110-2** which utilizes Message Board App Module **1330**, Directory App Module **1318**, and Connection App Module **1314**. User **104**-N has Social Media App(s) **110**-N which utilizes Message Board App Module **1330**, Directory App Module **1318**, and Connection App Module **1314**. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media apps for every user on the network. Social Media App(s) **110-1**, Social Media App(s) **110-2**, and Social Media App(s) **110**-N connect to Social Media System **106** for Publisher **3502** via Network(s) **108**. Social Media System **106** utilizes Chronicle System Modules **812**, Directory System Modules **818**, and Connection System Modules **814**. Connection **6200** is also comprised of Core Modules **700** which are used for any cross-cutting concerns across Social Media App(s) **110-1** to Social Media App(s) **110**-N, Social Media System **106**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all connection functionality.

[0273] This diagram illustrates how User **104** in FIG. **1** can create connections, which are stored in Connection **6014** in FIG. **60**. User **104-1** to User **104**-N uses Message Board App Module **1330**, Directory App Module **1318**, and Connection App Module **1314** to create connection requests. This workflow is further detailed in Connections and Groups **4500** in FIG. **45**. Social Media System **106** using Directory System Modules **818** and Connection System Modules **814** for Publisher **3502** can also create connections. There are three use cases for creating connections: user to user, publisher to user, and user to publisher. The connection functionality of the platform is distinct and separate from directory, accounts, and subscriptions. Each function stands on its own with its own set of system modules and app modules. Connections are not stored in the platform's directory. Each User **104** in FIG. **1** stores their connections in their own local Chronicle **2100** in FIG. **21** on their own Social Media System **106** in FIG. **1**. Users own and control all their connections, which means they can delete them at any time, as part of Distributed Social Media Network **300** in FIG. **3**.

[0274] FIG. **63** is a block diagram of Chronicle Record **2000** which is comprised of Ad Graph **6300**. Ad Graph **6300**, which descends from Base Graph **2050** in FIG. **20**, consists of Ad Graph Schema **6302**, Ad Graph Schema Version **6304**, Ad Graph Hash **6306**, and Ad Graph Signature **6308**. It also has Ad Graph Collection **6309** which contains Node(s) **6310** and Edge(s) **6340**. Node(s) **6310** consists of Ad **6312**, Ad Campaign **6314**, Ad Performance **6316**, Content **2912**, State **2610**, Ad Purchase **6318**, Ad Feature **6320**, and Ad Category

6322. Edge(s) **6340** consists of Ad Belongs To **6342**, Ad Metrix Of **6344**, and Ad Contains **6346**. Ad **6312** has the properties Ad Id **6350**, Ad Timestamp **6352**, Ad Subject **6354**, Ad Location **6356**, Ad Size **6358**, and Ad Cost **6360**. This diagram illustrates that ads exist within Chronicle Record **2000**.

[0275] FIG. **64** is a block diagram of the properties of Ad Campaign **6314** and Ad Performance **6316** nodes introduced in FIG. **63**. Ad Campaign **6314** has the properties Ad Campaign Id **6470**, Ad Campaign Timestamp **6472**, Ad Campaign Duration **6474**, Ad Campaign Reach **6476**, Ad Campaign Frequency **6478**, Ad Campaign Targets **6480**, Ad Campaign Rotation **6482**, and Ad Campaign Cost **6484**. Ad Performance **6316** has the properties Ad Performance Id **6485**, Ad Performance Timestamp **6486**, Ad Performance Impressions **6488**, Ad Performance Cost Per Impression **6490**, Ad Performance Click Thru Rate **6492**, Ad Performance Cost Per Click **6494**, Ad Performance Actions **6496**, Ad Performance Cost Per Action **6498**, and Ad Performance Return on Spend **6499**.

[0276] FIG. **65** is a block diagram of Ad Algorithms **6500** which is comprised of Ad Campaign Frequency Algorithms **6502**, Ad Campaign Reach Algorithms **6504**, Ad Campaign Rotation Algorithms **6506**, Ad Performance Impression Algorithms **6508**, Ad Performance Click Thru Rate Algorithms **6510**, Ad Performance Action Algorithms **6512**, and Ad Performance Return on Spend Algorithms **6514**. Ad Algorithms **6500** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Core Modules **700**. Ad Categories **6516** includes Ad Machine Learning **6518**, Ad Features **6520**, and Ad Classifier **6522**. Ad Categories **6516** is associated with Machine Learning System Modules **828**. Chronicle **2100** includes Chronicle Record **2000** which consists of Connection Graph **6000**, Ad Graph **6300**, Content Graph **2024**, and State Graph **2030**. Chronicle **2100** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Ad Algorithms **6500**.

[0277] Ad Campaign Frequency Algorithms **6502** utilizes Ad Campaign Frequency **6478** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Campaign Reach Algorithms **6504** utilizes Ad Campaign Reach **6476** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Campaign Rotation Algorithms **6506** utilizes Ad Campaign Rotation **6482** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Performance Impression Algorithms **6508** utilizes Ad Performance Impressions **6488** and Ad Performance Cost Per Impression **6490** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Performance Click Thru Rate Algorithms **6510** utilizes Ad Performance Click Thru Rate **6492** and Ad Performance Cost Per Click **6494** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Performance Action Algorithms **6512** utilizes Ad Performance Actions **6496** and Ad Performance Cost Per Action **6498** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**. Ad Performance Return on Spend Algorithms **6514** utilizes Ad Performance Return on Spend **6499** in FIG. **64** in conjunction with Machine Learning System Modules **828** and Ad Categories **6516**.

[0278] Ad Algorithms **6500** could also work in conjunction with AI System Modules **804**, Analytics System Modules **806**, and Third Party System Modules **844** which may provide additional functionality that can be integrated into Ad Algorithms **6500**. Core Modules **700** provides the cross-cutting functionality for Ad Algorithms **6500**. In particular, all interactions with the elements in FIG. **65** utilize Telemetry Core Module **714**, Logging Core Module **710**, and Exception Handling Core Module **702** in FIG. **7**. Telemetry Core Module **714** in FIG. **7** provides auditing insight into every interaction that can be audited and reported on vis a vie Audit System Modules **810** on FIG. **8**. Machine Learning System Modules **828** utilizes Ad Categories **6516** consisting of Ad Machine Learning **6518** which is based on a training set of data containing instances whose features and assigned category membership is known, Ad Features **6520** which are derived from system composition profiles and their resulting performance metrics from telemetry data managed by Telemetry System **226** in FIG. **2**, and Ad Classifier **6522** which is a classification algorithm that maps a new instance's system profile data to a category.

[0279] This diagram illustrates how machine learning and AI can be used at various touch points on Distributed Social Media Network **300** in FIG. **3**. Here Machine Learning System Modules **804** utilizes Ad Algorithms **6500**, Chronicle **2100**, and Ad Categories **6516** to monitor and optimize ad performance on the platform. In another embodiment of the invention, Machine Learning System Modules **828** and AI System Modules **804** can be used to verify that ad content conforms to the agreements of the network and ad standards. In another embodiment of the invention, Machine Learning System Modules **828** and AI System Modules **804** can be used to add another dimensionality to ad analysis by looking at performance metrics across other populations, categories, and features. For example, assume User **104** publishes a circular flier for a small grocery co-op in Boise, ID. Because this co-op is in a certain population and category, its ad performance could be compared to those of a similarly sized grocery co-op in Portland, OR, giving User **104** a much more robust analysis as well as additional insights for ad optimization not currently available.

[0280] FIG. **66** is a block diagram of Ad System Modules **802** which is comprised of Ad System Modules **6600**, Ad Campaign System Modules **6602**, Ad Performance System Module **6604**, Ad Purchase System Module **6606**, Ad Connection System Module **6608**, Ad State System Module **6610**, and Ad Content System Modules **6612**. Ad System Modules **802** interfaces with Platform Systems **102**, Chronicle **2100**, Ad Algorithms **6500**, and Core Modules **700**. Platform Systems **102**, which consists of Ad System **248** and Ad Platform System Modules **1648**, utilizes Chronicle **2100** as well as Ad Algorithms **6500**. Ad Algorithms **6500** interfaces with Ad System Modules **802**, Platform Systems **102** and Chronicle **2100**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Connections Graph **6000**, Ad Graph **6300**, Content Graph **2024** and State Graph **2030**. Core Modules **700** is used for any cross-cutting concerns across Ad System Modules **802** and Platform Systems **102**. This diagram illustrates Ad System Modules **802** as it relates to Platform Systems **102**,

Ad Algorithms **6500**, Core Modules **700**, and Chronicle **2100**. FIG. **66** also illustrates Platform Systems **102**'s relationship to Ad Algorithms **6500**, Chronicle **2100**, and Core Modules **700**.

[0281] FIG. **67** is a block diagram of Ad **6700** which illustrates the ad functionality of the platform. Ad **6700** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Connection Graph **6000**, Ad Graph **6300**, Content Graph **2024**, and State Graph **2030**. User **104-1** has Social Media App(s) **110-1**, User **104-2** has Social Media App(s) **110-2**, and User **104**-N has Social Media App(s) **110**-N, all of which utilize Message Board App Module **1330** to see ads. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media apps for every user on the network. Social Media App(s) **110-1**, Social Media App(s) **110-2**, and Social Media App(s) **110**-N connect to Social Media System **106** for Publisher **3502** via Network(s) **108**. Social Media System **106** utilizes Chronicle System Modules **812**, Directory System Modules **818**, Connection System Modules **814**, Ad Algorithms **6500**, and Ad System Modules **802**. Ad **6700** is also comprised of Core Modules **700** which is used for any cross-cutting concerns across Social Media App(s) **110-1** to Social Media App(s) **110**-N, Social Media System **106**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all ad functionality.

[0282] This diagram shows that publishers are responsible for the advertising that appears on Distributed Social Media Network **300** in FIG. **3**, and unlike existing centralized options, they keep the bulk of any ad revenue. The network makes the transaction between User **104** and Publisher **3502** possible with workflows that leverage Chronicle **2100** and select system modules to create, publish and pay for ads all through Social Media App(s) **110**. All ads run by the day. Most will be local or subject specific given the distributed nature of the network. The network will make a select number of ads available at the regional and national level, whereby some national placements will be available for delivery to 100% of users every day. In one embodiment of the invention, every user gets every ad that has been placed with a publisher that they are connected to. In another embodiment of the invention, Publisher **3502** can micro target ad content for User **104**.

[0283] FIG. **68** is a block diagram of Ad Purchase **6800** which illustrates the ad purchase functionality of the platform. Ad Purchase **6800** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Connection Graph **6000**, Ad Graph **6300**, Content Graph **2024**, and State Graph **2030**. User **104-1** has Social Media App(s) **110-1** which utilizes Message Board App Modules **1330**, Ad App Module **1302**, and Payment App Module **1334** to purchase an ad to run with Publisher **3502**. Publisher **3502** has Social Media System **106** which utilizes Ad System Modules **802**, Payment System Modules **834**, Connection System Modules **814**, and Chronicle System Modules **812** to accept payment for User **104**'s ad. Publisher **3502** also has Social Media App(s) **110**, which utilizes Message Board App Module **1330** and Ad App Module **1302** to manage ads. Publisher **3502**'s Social Media System **106** connects to their Social Media App(s) **110** and User **104-1**'s Social Media App **110-1** via Network(s) **108**. Ad Purchase **6800** is also comprised of Core Modules **700** which is used for any cross-cutting concerns across Social Media App(s) **110**, Social Media App(s) **110-1**, Social Media System **106**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all ad purchase functionality.

[0284] This diagram shows how User **104-1** can purchase an ad from any Publisher **3502** they select on Distributed Social Media Network **300** in FIG. **3**. Both parties work inside their own social media app(s) to facilitate the ad purchase, and Publisher **3502** uses select system modules and Chronicle **2100** to manage the process. In another embodiment of the invention, User **104** calls or emails Publisher **3502** to make an ad purchase.

[0285] FIG. **69** is a block diagram of Ad Distribution **6900** which illustrates the ad distribution functionality of the platform. User **104-1** has Social Media App(s) **110-1**, User **104-2** has Social Media App(s) **110-2**, and User **104**-N has Social Media App(s) **110**-N, all of which utilize Message Board App Module **1330**. The ellipse between Social Media App(s) **110-2** and Social Media App(s) **110**-N illustrates that there are N number of social media apps for every user on the network. Social Media App(s) **110-1**, Social Media App(s) **110-2**, and Social Media App(s) **110**-N connect to Social Media System **106** for Publisher **3502** via Network(s) **108**. Social Media System **106** utilizes Chronicle System Modules **812**, Directory System Modules **818**, Connection System Modules **814**, Ad Algorithms **6500**, and Ad System Modules **802**. Ad Distribution **6900** is also comprised of Distribution System Modules **820** which consists of Distribution System Module **3100**, Distribution Event Grid Module **3102**, and Distribution Notification Hub Module **3106**. Distribution Event Grid Module **3102** is connected to Distribution Event Grid **3104**. Distribution Notification Hub Module **3106** is connected to Distribution Notification Hub **3108**. Distribution System Modules **820** interacts with Chronicle **2100** as well as Core Modules **700** which provides all the cross-cutting functionality for Distribution System Modules **820**. Core Modules **700** is also used for any cross-cutting concerns across Social Media App(s) **110-1** to Social Media App(s) **110**-N and Social Media System **106**. This diagram shows that ads (new content plus any state changes) can be distributed across Distributed Social Media Network **300** in FIG. **3** using both pull and push techniques as detailed in FIG. **31**.

[0286] FIG. **70** is a block diagram of Chronicle Collection **7000** which is comprised of Chronicle **2100** and Annals **2200**. Chronicle **2100** consists of Chronicle Record **2120-1**, Chronicle Record **2120-2**, and Chronicle Record **2120**-N. The ellipse between Chronicle Record **2120-1** and Chronicle Record **2120**-N indicates that there are N number of chronicle records in Chronicle **2100**. Annals **2200** consists of Chronicle **2020-1**, Chronicle **2020-2**, and Chronicle **2020**-N. The ellipse between Chronicle **2020-2** and Chronicle **2020**-N indicates that there are N number of chronicles in Annals **2200**. Platform Systems **102** is comprised of Chronicle System **206**. Platform System Modules **1600** is comprised of Chronicle Platform System Modules **1608** which consists of Chronicle Aggregation Platform System Module **2300**, Chronicle Archive Platform System Module **2302**, Chronicle Audit Platform System Modules **2304**, and Chronicle Management Module **2306**. System Modules **800** is comprised of Chronicle System Modules **812**. This diagram illustrates how Platform Systems **102**, System Modules **800**, and Platform System Modules **1600** interface with Chronicle Collection **7000**.

[0287] FIG. **71** is a block diagram of Chronicle Record **2000** which is comprised of User Verification Graph **7100**. User Verification Graph **7100**, which descends from Base Graph **2050** in FIG. **20**, consists of User Verification Graph Schema **7102**, User Verification Graph Schema Version **7104**, User Verification Graph Hash **7106**, and User Verification Graph Signature **7108**. It also consists of User Verification Graph Collection **7110** which contains Node(s) **7112** and Edge(s) **7140**. Node(s) **7112** consists of User Verification **7114**, User Verification Feature **7116**, User Verification Category **7118**, User Verification Purchase **7120**, State **2610**, and Connection **6014**. Edge(s) **7140** consists of User Verification Probability **7142**. User Verification **7114** has the properties User Verification Id **7150**, User Verification Timestamp **7152**, and User Verification Cost **7154**. This diagram illustrates that user verification exists within Chronicle Record **2000**.

[0288] FIG. **72** is a block diagram of Chronicle Record **2000** which is comprised of User Verification Features **7200**. User Verification Features **7200** consists of Password Confirmation by Email **7202**, 2FA Enabled **7204**, Email Source **7206**, Device Type **7208**, Device Count **7210**, Mobile Network **7212**, Verification Location Match **7214**, Verification Purchase **7216**, Verification Payment Method **7218**, ACH Authorization Verification **7220**, In-Person Verification **7222**, In-Person Verification Id Type **7224**, In-Person Verification Id Check **7226**, In-Person Verification Photo Taken **7228**, SSN Verification **7230**, EIN Verification **7232**, Credit Soft Inquiry **7234**, and Background Check **7236**. All users on the platform must be verified for their safety as well as for the integrity of Distributed Social Media Network **300** in FIG. **3**. This diagram details the User Verification Features **7200** used by Machine Learning System Modules **804** in FIG. **8** to verify users. User **104** in FIG. **1** has a number of ways that they can prove they are who they say they are. They are able to choose how they want to be verified and at what expense. The platform aims to significantly increase the probability that User **104** is who they say they are before making all platform functionality available for use. For example, the bar required to Post **3400** in FIG. **34** is not as high as it is to Publish **4400** in FIG. **44**.

[0289] FIG. **73** is a block diagram of User Verification Algorithms **7300** which contains User Verification Identity Algorithms **7302**, User Verification Device Algorithms **7304**, User Verification Network Algorithms **7306**, User Verification Financial Algorithms **7308**, User Verification In-Person Algorithms **7310**, and User Verification Credit and Background Algorithms **7312**. User Verification Algorithms **7300** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Core Modules **700**. User Verification Categories **7314** includes User Verification Machine Learning **7316**, User Verification Feature **7200**, and User Verification Classifier **7320**. User Verification Categories **7314** is associated with Machine Learning System Modules **828**. Chronicle **2100** includes Chronicle Record **2000** which consists of Connection Graph **6000**, User Verification Graph **7100**, Directory Graph **2034**, and State Graph **2030**. Chronicle **2100** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and User Verification Algorithms **7300**.

[0290] User Verification Identity Algorithms **7302** utilizes Password Confirmation by Email **7202**, 2FA Enabled **7204**, and Email Source **7206** features in FIG. **72**. It is intended to be used with features involving identity and data around authentication and authorization for user verification in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**. User Verification Device Algorithms **7304** utilizes Device Type **7208** and Device Count **7210** features in FIG. **72**. It is intended to be used with features involving device(s) related data in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**. User Verification Network Algorithms **7306** utilizes Mobile Network **7212** and Verification Location Match **7214** features in FIG. **72**. It is intended to be used with features involving network related data in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**. User Verification Financial Algorithms **7308** utilizes Verification Purchase **7216**, Verification Payment Method **7218**, and ACH Authorization Verification **7220** features in FIG. **72**. It is intended to be used with features involving financial related data in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**. User Verification In-Person Algorithm **7310** utilizes In-Person Verification **7222**, In-Person Verification Id Type **7224**, In-Person Verification Id Check **7226**, and In-Person Verification Photo Taken **7228** features in FIG. **72**. It is intended to be used with features involving in-person related data in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**. This data is collected when User **104** in FIG. **1** goes to Publisher **3502** in FIG. **35** and gets verified by them in person. User Verification Credit and Background Algorithms **7312** utilizes SSN Verification **7230**, EIN Verification **7232**, Credit Soft Inquiry **7234**, and Background Check **7236** features in FIG. **72**. It is intended to be used with features involving credit and background related data in conjunction with Machine Learning System Modules **828** and User Verification Categories **7314**.

[0291] User Verification Algorithms **7300** could also work in conjunction with AI System Modules **804**, Analytics System Modules **806**, and Third Party System Modules **844** which may provide additional user verification systems or functionality that can be integrated into User Verification Algorithms **7300**. Core Modules **700** provides the cross-cutting functionality for User Verification Algorithms **7300**. In particular, all interactions with the elements in FIG. **73** utilize Telemetry Core Module **714**, Logging Core Module **710**, and Exception Handling Core Module **702** in FIG. **7**. Telemetry Core Module **714** in FIG. **7** provides auditing insight into every interaction that can be audited and reported on vis a vie Audit System Modules **810** on FIG. **8**. Machine Learning System Modules **828** utilizes User Verification Categories **7314** consisting of User Verification Machine Learning **7316** which is based on a training set of data containing instances whose features and assigned category membership is known, User Verification Features **7200** which are derived from system composition profiles and their resulting performance metrics from telemetry data managed by Telemetry System **226** in FIG. **2**, and User Verification Classifier **7320** which is a classification algorithm that maps a new instance's system profile data to a category.

[0292] This diagram illustrates how Machine Learning System Modules **828** looks at User Verification Features **7200** in FIG. **72**, puts weight on different features, creates probability for authenticity of user verification, and put User

104 in FIG. **1** into User Verification Classifier **7320** regarding identity. Existing centralized social media networks have very flat onboarding experiences. Various embodiments of the present technology are very dynamic. Depending on what path User **104** in FIG. **1** chooses to take, there is a higher probability of user verification. The platform also has User **104** in FIG. **1** re-verify at different times (e.g. annually) since it is critical that Users are Known **3624** and Users are Verified **3626** in FIG. **36** to maintain user safety and network integrity. Because Publisher **3502** in FIG. **35** can verify users as part of Distributed Social Media Network **300** in FIG. **3**, there are economies of scale and increased probability of accuracy not possible with central authorities.

[0293] FIG. **74** is a block diagram of User Verification System Modules **866** which is comprised of User Verification System Module **7400**, User Verification Features System Module **7402**, User Verification Category System Module **7404**, User Verification Purchase System Module **7406**, User Verification Connection System Module **7408**, User Verification State System Module **7410**, User Verification Content System Module **7412**, and User Verification Probability System Module **7414**. User Verification System Modules **866** interfaces with Platform Systems **102**, Chronicle **2100**, User Verification Algorithms **7300**, and Core Modules **700**. Platform Systems **102**, which consists of User Verification System **228** and User Verification Platform System Modules **1630**, utilizes Chronicle **2100** as well as User Verification Algorithms **7300**. User Verification Algorithms **7300** interfaces with User Verification System Modules **866**, Platform Systems **102**, and Chronicle **2100**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Connection Graph **6000**, User Verification Graph **7100**, Directory Graph **2034**, and State Graph **2030**. Core Modules **700** is used for any cross-cutting concerns across Verification System Modules **866** and Platform Systems **102**. This diagram illustrates User Verification System Modules **866** as it relates to Platform Systems **102**, User Verification Algorithms **7300**, Core Modules **700**, and Chronicle **2100**. FIG. **74** also illustrates Platform Systems **102**'s relationship to User Verification Algorithms **7300**, Chronicle **2100**, and Core Modules **700**.

[0294] FIG. **75** is a block diagram of User Verification **7500** which illustrates the user verification functionality of the platform. User Verification **7500** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Connection Graph **6000**, User Verification Graph **7100**, and State Graph **2030**. Platform Systems **102** utilizes Chronicle System Modules **812**, User Verification System Modules **866**, User Verification System **228**, and User Verification Platform System Modules **1630**. Platform Systems **102** connects to Social Media System **106-1** for User **104-1**, Social Media System **106-2** for User **104-2**, and Social Media System **106**-N for User **104**-N via Network(s) **108**. User **104-1**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, User Verification System Modules **866**, and Connection System Modules **814**. User **104-2**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, User Verification System Modules **866**, and Connection System Modules **814**. User **104**-N's Social Media System **106**-N utilizes Chronicle System Modules **812**, User Verification System Modules **866**, and Connection System Modules **814**. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. User Verification **7500** is also comprised of Core Modules **700** which are used for any cross-cutting concerns across Platform Systems **102**, Social Media System **106-1** to Social Media System **106**-N, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all user verification functionality.

[0295] This diagram illustrates how User Verification System Modules **866** is utilized by Platform Systems **102** and all social media systems on Distributed Social Media Network **300** in FIG. **3** for user verification. Any other System Modules **800** can also be used in conjunction with User Verification System Modules **866** if appropriate to facilitate various workflows, such as Onboarding System Modules **832**, Payment System Modules **834**, or Subscription System Modules **842** in FIG. **8**.

[0296] FIG. **76** is a block diagram of Chronicle Record **2000** which is comprised of Trending Graph **7600**. Trending Graph **7600**, which descends from Base Graph **2050** in FIG. **20**, consists of Trending Graph Schema **7602**, Trending Graph Schema Version **7604**, Trending Graph Hash **7606**, and Trending Graph Signature **7608**. It also consists of a Trending Graph Collection **7610** which contains Node(s) **7612** and Edge(s) **7640**. Node(s) **7612** consists of Trend Billboard **7614** and Content **2912**. This diagram illustrates that trending information exists within Chronicle Record **2000**.

[0297] FIG. **77** is a block diagram that illustrates Trending System Modules **868** and its relationship to Platform Systems **102**, Trending **4800**, Core Modules **700** and Chronicle **2100**. Trending System Modules **868** consists of Trending System Module **7700** and Trending Billboard System Module **7702**. Platform Systems **102** consists of Trending System **244** and Trending Platform System Modules **1644**. Trending **4800** consists of Publisher Trending **4802**, Mention Trending **4806**, Hashtag Trending **4804**, and Publishable Content Types **3700**. Chronicle **2100** consists of Chronicle Record **2000**, which contains Directory Graph **2034**, Content Graph **2024**, Trending Graph **7600**, State Graph **2030**, and Connection Graph **6000**. Trending System Modules **868** interfaces with Platform Systems **102**, Chronicle **2100**, Trending **4800**, and Core Modules **700**. Platform Systems **102** utilizes Chronicle **2100**, Trending **4800**, and Core Modules **700**. Trending **4800** interfaces with Trending System Modules **868** and Platform Systems **102**. Core Modules **700** is used for any cross-cutting concerns across Trending System Modules **868** and Platform Systems **102**.

[0298] FIG. **78** is a block diagram of Trending Billboard **7800** which illustrates the trending billboard functionality of the platform. Trending Billboard **7800** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Directory Graph **2034**, Content Graph **2024**, Trending Graph **7600**, State Graph **2030**, and Connection Graph **6000**. Platform Systems **102** utilizes Chronicle System Modules **812**, Trending System Modules **868**, and Trending Billboard **7802**. Platform Systems **102** connects to Social Media System **106-1** for User **104-1**, Social Media System **106-2** for User **104-2**, Social Media System **106**-N for User **104**-N via Network(s) **108**. User **104-1**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, Trending System Modules **868**, and Trending Billboard **7802-1**. User **104-2**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, Trending System Modules **868**, and Trending Billboard **7802-2**. User **104**-N's Social Media System **106**-N utilizes Chronicle System Modules

812, Trending System Modules **868**, and Trending Billboard **7802**-N. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. Trending Billboard **7800** is also comprised of Core Modules **700** which provides the cross-cutting functionality for Platform Systems **102**, Social Media System **106-1** to Social Media System **106**-N, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all trending billboard functionality.

[0299] All of the trending functionality of FIG. **78** builds on the trending functionality detailed in FIG. **48**. This diagram shows that Trending Billboard **7800** is essentially a roll up of the trending for each Social Media System **106** as well as for Platform System **102**, which represents a complete aggregation of all trending across Distributed Social Media Network **300** in FIG. **3**. Each trending Billboard **7802** lives in Chronicle **2100**. The platform will provide pre-canned trends for each day as well as unique tools that give User **104** the ability to find and consume trending data that is important to them. There is no algorithm, such as those utilized within existing centralized social media networks, that tells User **104** what they are interested in or provides trends that are skewed or biased based on some complex promotional scheme. Instead User **104** gets to explore the content for themselves and see what is trending across multiple domains such as the content metadata detailed in FIG. **29**, the type of content or publisher detailed in FIG. **37**, and location (city, state, region, national, global). So not only does User **104** own and control their content, they can actually consume it in unique and customized ways.

[0300] FIG. **79** is a block diagram of Chronicle Record **2000** which is comprised of Endorsement Graph **7900**. Endorsement Graph **7900**, which descends from Base Graph **2050** in FIG. **20**, consists of Endorsement Graph Schema **7902**, Endorsement Graph Schema Version **7904**, Endorsement Graph Hash **7906**, and Endorsement Graph Signature **7908**. It also consists of Endorsement Graph Collection **7910** which contains Node(s) **7912** and Edge(s) **7940**. Node (s) **7912** consists of Endorsement **7914**, Content **2912**, State **2610**, and Connection **6014**. This diagram illustrates that endorsements exist within Chronicle Record **2000**.

[0301] FIG. **80** is a block diagram of Endorsement System Modules **848** which is comprised of Endorsement System Module **8000**. Endorsement System Modules **848** interfaces with Platform Systems **102**, Chronicle **2100**, and Core Modules **700**. Platform Systems **102**, which consists of Endorsement System **246** and Endorsement Platform System Modules **1644**, utilizes Chronicle **2100** and Core Modules **700**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Directory Graph **2034**, Content Graph **2024**, Endorsement Graph **7790**, State Graph **2030**, and Connection Graph **6000**. Core Modules **700** is used for any cross-cutting concerns across Endorsement System Modules **848** and Platform Systems **102**. This diagram illustrates Endorsement System Modules **848** as it relates to Platform Systems **102**, Core Modules **700**, and Chronicle **2100**. FIG. **80** also illustrates Platform Systems **102**'s relationship to Chronicle **2100** and Core Modules **700**.

[0302] FIG. **81** is a block diagram of Endorsement **8100** which illustrates the endorsement functionality of the platform. Endorsement **8100** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Directory Graph **2034**, Content Graph **2024**, Endorsement Graph **7900**, State Graph **2030**, and Connection Graph **6000**. Platform Systems **102** utilizes Chronicle System Modules **812**, Endorsement Platform System Modules **1646**, and Endorsed Content **8102**. Platform Systems **102** connects to Social Media System **106-1** for User **104-1**, Social Media System **106-2** for User **104-2**, Social Media System **106**-N for User **104**-N via Network(s) **108**. User **104-1**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, Endorsement System Modules **870**, and Endorsed Content **8102-1**. User **104-2**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, Endorsement System Modules **870**, and Endorsed Content **8102-2**. User **104**-N's Social Media System **106**-N utilizes Chronicle System Modules **812**, Endorsement System Modules **868**, and Endorsed Content **8102**-N. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. Endorsement **8100** is also comprised of Endorsement Engine **8104** and Core Modules **700** which provides the cross-cutting functionality for Platform Systems **102**, Social Media System **106-1** to Social Media System **106**-N, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all endorsement functionality.

[0303] This diagram illustrates that every Social Media System **106** has the ability to generate endorsed content for Distributed Social Media Network **300** in FIG. **3**. All content, including ads, can be endorsed. In one embodiment of the invention, endorsements are free. One sample use case is an Editorial/Opinion **3720** in FIG. **37** that is endorsed by academics or politicians who want to lend their name to the notion expressed in the content. In another embodiment of the invention, endorsements are paid for utilizing Payment System Modules **834** and Payment App Module **1334**. One sample use case is a content producer who uses Endorsement Engine **8104** to have their content matched with celebrities, noted sports figures, etc. who want to be paid for their endorsement. Note that an endorsement that appears inside of a message as Endorsed Content **8102** is different from Display Ads **3718** as a Publishable Content Type **3700** in FIG. **37**. Various embodiments of the present technology support both.

[0304] FIG. **82** is a block diagram of Certified Business Email **8200** which illustrates the business certified email functionality of the platform. Business Certified Email **8200** is comprised of Chronicle **2100** which contains Chronicle Record **2000** which consists of Certified Email Graph **5000** which contains Certified Email **5014**. It is also comprised of Certified Data **5102** which contains Certified Email Id **5060** and Certified Email Hash **5108**. FIG. **82** also contains the Publisher Email Address **8206** and Core Modules **700** which provides all the cross-cutting functionality for Business Certified Email **8200**. Social Media System **106-1** for User **104-1** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Certified Email System Modules **856**. Certified Email System Modules **856** utilizes Certified Data **5102**. Email Message **5072** is associated to Source SMTP Server **5104** and Destination SMTP Server **5106**. Social Media System **106-2** for User **104-2** utilizes Chronicle System Modules **812**, Payment System Modules **834**, and Certified Email System Modules **856**. Certified Email System Modules **856** utilizes Certified Data **5102**. Social Media System **106** for Publisher **3502** utilizes Chronicle System Modules **812**, Payment System Modules

834, and Certified Email System Modules **856**. Certified Email System Modules **856** utilizes Certified Data **5102** and Publisher Certified Email Address **8240**. User **104-1**'s Social Media System **106-1** and User **104-2**'s Social Media System **106-2** interface with Publisher **3502**'s Social Media System **106**, Source SMTP Server **5104**, and Destination SMTP Server **5106** via Network(s) **108**.

[0305] Business Certified Email **8200** in FIG. **82** illustrates how Certified Email System Modules **856** integrate with SMTP to facilitate secure email exchanges for business so that source email addresses, content and attachments are captured as an immutable, traceable hash that enable recipients to verify email sources, content and attachments, and thereby thwart email security hazards such as viruses, trojan horses, phishing, spear-fishing, etc. Business Certified Email **8200** verified email reduces security risks inherent with emails containing malicious URI and attachments.

[0306] Certified Email System Modules **856** for Social Media System **106-1** integrates with Source SMTP Server **5104** to capture outgoing email messages. Once an email is captured, a Merkle root is calculated from the email addresses, content and attachments. The Merkle root, email timestamp, from address, to addresses, cc addresses are sent to the Certified Email System Modules **856** for the Publisher **3502** which creates a Certified Email **5014** node from FIG. **50** for a new Chronicle Record **2000**.

[0307] The Merkle root is stored in Email Hash **5076**, email timestamp is stored in Email Timestamp **5064**, from address is stored in Email From Address **5066**, to addresses is stored in Email To Address **5068**, and cc addresses is stored in Email CC Address **5070** of Certified Email **5014**.

[0308] Certified Email Timestamp **5062**, Certified Email Id **5060**, and Certified Email Key **5074** are then generated and stored in Certified Email **5014**. Certified Email Hash **5108** is a Merkle root generated from Certified Email **5014** properties. Certified Data **5102** containing Certified Email Id **5060** and Certified Email Hash **5108** are then sent back to Certified Email System Modules **856** for the User **104-1**. Certified Data **5102** and Publisher Email Address **8206** are added to outgoing email messages as the final processing step before being sent.

[0309] Upon receipt of the email, Certified Email System Modules **856** for Publisher **3502** utilizes Certified Data **5102** to locate Chronicle Record **2000**, and then encrypts and stores the email to the Email Message **5072** property of Certified Email **5014**. Certified Email System Modules **856** then calculates a Merkle root from the received email addresses, content and attachments. The hash value is used to verify the stored value in the Email Hash **5076** property of Certified Email **5014**. The verification result is stored in the Certified Email Verified **5078** property of Certified Email **5014**.

[0310] Upon receipt of the email, Certified Email System Modules **856** for the User **104-2**, associated with Destination SMTP Server **5106**, intercepts the incoming email, removes the Certified Data **5102** data and calculates a Merkle root from the received email addresses, content, and attachments. The resulting hash, Certified Email Id **5060**, and Certified Email Hash **5108** is then sent to Certified Email System Modules **856** for Publisher **3502** to certify the email.

[0311] Upon determining the certification results, Certified Email System Modules **856** for Publisher **3502** returns Certified Email Verified **5078** to Certified Email System Modules **856** for User **104-2**. If Certified Email Verified **5078** is true, then the email is delivered to the recipients, else it is sent to a "hazard" email box for further processing or inspection.

[0312] In one embodiment of the invention Certified Email System Modules **856** is a proxy server for Source SMTP Server **5104** and Destination SMTP Server **5106**. In another embodiment of the invention, Certified Email System Modules **856** is integrated into Source SMTP Server **5104** and Destination SMTP Server **5106**.

[0313] Payment System Modules **834** for Publisher **3502**, User **104-1** and User **104-2** can be used to setup payments for certified email processing. Core Modules **700** provides all cross-cutting functions for systems and system modules.

[0314] FIG. **83** is a block diagram of Chronicle Record **2000** which is comprised of Content Verification Graph **8300**. Content Verification Graph **8300**, which descends from Base Graph **2050** in FIG. **20**, consists of Content Verification Graph Schema **8302**, Content Verification Graph Schema Version **8304**, Content Verification Graph Hash **8306**, and Content Verification Graph Signature **8308**. It also consists of Content Verification Graph Collection **8310** which contains Node(s) **8312** and Edge(s) **8340**. Node (s) **8312** consists of Content Verification **8314**, Content Verification Feature **8316**, Content Verification Category **8318**, State **2610**, and Connection **6014**. Edge(s) **8340** consists of Content Verification Probability **8342**. Content Verification **8314** has the properties Content Verification Id **8350** and Content Verification Timestamp **8352**. This diagram illustrates that content verification exists within Chronicle Record **2000**.

[0315] FIG. **84** is a block diagram of Chronicle Record **2000** which is comprised of Content Verification Features **8400**. Content Verification Features **8400** consists of Content Type **8402**, Content Meta Data **8404**, Source Location **8406**, Content Size **8408**, Associated Content **8410**, Content Source Frequency **8412**, Content Device **8414**, Content Filter Scan **8416**, Video Sound Analysis **8418**, Video Text Analysis **8420**, Video Object Analysis **8422**, Video Subject Analysis **8424**, Picture Text Analysis **8426**, Picture Object Analysis **8428**, Picture Subject Analysis **8430**, Source Hash Analysis **8432**, Text Subject Analysis **8434**, and Text Key Word Analysis **8436**.

[0316] This diagram details the Content Verification Features **8400** used by Machine Learning System Modules **804** in FIG. **8** to verify content. Content Type **8402** is the type of content. Content Meta Data **8404** is the content metadata. Source Location **8406** is where the content originates from, specifically what device plus the location metadata on the content. Content Size **8408** is the content size. Associated Content **8410** is what other content is submitted with the content in question. Content Source Frequency **8412** is how frequently the source is submitting content. Content Device **8414** is the kind of device the content originated from. Content Filter Scan **8416** is a scan of text, looking for key words that might require flagging. Video Sound Analysis **8418** is analysis of video sound. Video Text Analysis **8420** is analysis of video text. Video Object Analysis **8422** is analysis of video objects. Video Subject Analysis **8424** is analysis of video subject. Picture Text Analysis **8426** is analysis of picture text. Picture Object Analysis **8428** is analysis of picture objects. Picture Subject Analysis **8430** is analysis of picture subjects. Source Hash Analysis **8432** is analysis of source hash and searching for same hash for known offensive or illegal material. Text Subject Analysis

8434 is analysis of text subject. Text Key Word Analysis **8436** is analysis of text key words.

[0317] FIG. **85** is a block diagram of Content Verification Algorithms **8500** which contains Content Verification Source Algorithms **8502**, Content Verification Context Algorithms **8504**, Content Verification Meta Data Algorithms **8506**, Content Verification Video Algorithms **8508**, Content Verification Picture Algorithms **8510**, and Content Verification Text Algorithms **8512**. Content Verification Algorithms **8500** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Core Modules **700**. Content Verification Categories **8514** includes Content Verification Machine Learning **8516**, Content Verification Features **8400**, and Content Verification Classifier **8520**. Content Verification Categories **8514** is associated with Machine Learning System Modules **828**. Chronicle **2100** includes Chronicle Record **2000** which consists of Connection Graph **6000**, Content Verification Graph **8300**, Directory Graph **2034**, and State Graph **2030**. Chronicle **2100** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Content Verification Algorithms **8500**.

[0318] Content Verification Algorithms **8500** utilizes Content Verification Features **8400** in FIG. **84**. It is intended to be used with features involving source, context, metadata, video, picture and text related data in conjunction with Machine Learning System Modules **828** and Content Verification Categories **8514**. Content Verification Algorithms **8500** could also work in conjunction with AI System Modules **804**, Analytics System Modules **806**, and Third Party System Modules **844** which may provide additional content verification systems or functionality that can be integrated into Content Verification Algorithms **8500**. Core Modules **700** provides the cross-cutting functionality for Content Verification Algorithms **8500**. In particular, all interactions with the elements in FIG. **85** utilize Telemetry Core Module **714**, Logging Core Module **710**, and Exception Handling Core Module **702** in FIG. **7**. Telemetry Core Module **714** in FIG. **7** provides auditing insight into every interaction that can be audited and reported on vis a vie Audit System Modules **810** on FIG. **8**. Machine Learning System Modules **828** utilizes Content Verification Categories **8514** consisting of Content Verification Machine Learning **8516** which is based on a training set of data containing instances whose features and assigned category membership is known, Content Verification Features **8400** which are derived from system composition profiles and their resulting performance metrics from telemetry data managed by Telemetry System **226** in FIG. **2**, and Content Verification Classifier **8520** which is a classification algorithm that maps a new instance's system profile data to a category.

[0319] This diagram illustrates how Machine Learning System Modules **804** looks at Content Verification Features **8400** in FIG. **84**, puts weight on different features, creates probability for authenticity of content verification, and puts the content in question into Content Verification Classifier **8520**.

[0320] FIG. **86** is a block diagram of Content Verification System Modules **872** which is comprised of Content Verification System Module **8600**, Content Verification Features System Module **8602**, Content Verification Category System Module **8604**, Content Verification Connection System Module **8608**, Content Verification State System Module **8610**, Content Verification Content System Module **8612**, and Content Verification Probability System Module **8614**. Content Verification System Modules **872** interfaces with Platform Systems **102**, Chronicle **2100**, Content Verification Algorithms **8500**, and Core Modules **700**. Platform Systems **102**, which consists of Content Verification System **250** and Content Verification Platform System Modules **1650**, utilizes Chronicle **2100** as well as Content Verification Algorithms **8500**. Content Verification Algorithms **8500** interfaces with Content Verification System Modules **872**, Platform Systems **102**, and Chronicle **2100**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Connection Graph **6000**, Content Verification Graph **8300**, Directory Graph **2034**, and State Graph **2030**. Core Modules **700** provides all the cross-cutting functionality for Content Verification System Modules **872** and Platform Systems **102**. This diagram illustrates Content Verification System Modules **802** as it relates to Platform Systems **102**, Content Verification Algorithms **8500**, Core Modules **700**, and Chronicle **2100**. FIG. **86** also illustrates Platform Systems **102**'s relationship to Content Verification Algorithms **8500**, Chronicle **2100**, and Core Modules **700**.

[0321] FIG. **87** is a block diagram of Content Verification **8700** which illustrates the content verification functionality of the platform. Content Verification **8700** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Connection Graph **6000**, Content Verification Graph **8300**, and State Graph **2030**. Platform Systems **102** utilizes Chronicle System Modules **812**, Content Verification System Modules **872**, Content Verification System **250**, and Content Verification Platform System Modules **1650**. Platform Systems **102** connects to Social Media System **106-1** for User **104** and Social Media System **106-2** for Publisher **3502** via Network(s) **108**. User **104**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, Content Verification System Modules **872**, and Connection System Modules **814**. Social Media System **106-1** connects to Post **3400**. Publisher **3502**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, Content Verification System Modules **872**, and Connection System Modules **814**. Social Media System **106-2** connects to Publish **4000**. Content Verification **8700** is also comprised of Core Modules **700** which are used for any cross-cutting concerns across Platform Systems **102**, Social Media System **106-1**, Social Media System **106-2**, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all content verification functionality.

[0322] This diagram illustrates that all content on Distributed Social Media Network **300** in FIG. **3**, whether posted or published, goes through Content Verification System Module **872** and Content Verification Platform System Modules **1650** for verification before distribution. Every Chronicle Record **2000** and its associated Connection Graph **6000**, Content Verification Graph **8300**, and State Graph **2030** are inspected to ensure the content meets with network terms of service, including compliance with state and federal laws, as well journalistic or ad standards. If content is rejected for posting, User **104** can be notified via Content Verification App Module **1372** working in conjunction with Message Board App Module **1330**. If content is flagged before publishing, Publisher **3502** can use Content Verification App Module **1372** in FIG. **13** to actually inspect the flagged content and either inform User **104** that the content has been

edited and needs to be re-submitted or that the content has been rejected. Publisher **3502** can also use Third Party System Modules **844** to integrate third party systems for content verification, which is especially useful if a government agency, for example, has a warrant to investigate and document suspected unlawful activity of bad actors on the network.

[0323] In sum, Distributed Architecture **100** in FIG. **1** enables the examination and verification of content, both automatically and manually, in ways that are highly scalable, processed through parallelism, and far more efficient and effective at the micro level than the approaches being attempted by centralized social media networks at the macro level. Furthermore, the use of Chronicle **2100** with its traceability, visibility, and immutability holds both users and publishers to a much higher standard of content quality because they are held accountable for what is ultimately distributed on the network.

[0324] FIG. **88** is a block diagram of Message Board **8800** which illustrates Message Board Boundary **8802** which contains Message Board Header **8804**, element "P" **8846**, element "G" **8848**, Hamburger Menu **8806**, Message Content Border **8808**, Message Board Scroll Bar **8810**, and Message Board Footer **8820**. Message Content Border **8808** contains Message Header **8812**, Message Footer **8818**, and Message Border **8814**. Message Border **8814** contains Message Content **8816**.

[0325] The figure also illustrates Posting App Menu Item **8822**, Publishing App Menu Item **8824**, Search App Menu Item **8826**, Customize Menus **8828**, App Menu Items **8830**, System Menu Items **8832**, and Platform System Menu Items **8834**. Customize Menus **8828** references Sort **8860**, Filter **8862**, Hide **8864**, Pin **8866**, Prioritize **8868**, Group **8870**, Ignore **8872**, and Trend **8874** menus.

[0326] Message Board **8800** contains one or more messages. Each message has Message Header **8812**, Message Border **8814**, Message Content **8816**, and Message Footer **8818**. Message Border **8814** may utilize different colors or graphics to illustrate Publishable Content Types **3700** in FIG. **37**.

[0327] Each menu illustrates buttons or links to user interface screens that enable application features and functionality. Hamburger Menu **8806** illustrates a button or link to display dropdown items for Posting App Menu Item **8822**, Publishing App Menu Item **8824**, Search App Menu Item **8826**, and Customize Menus **8828** menus. Element "P" **8846** illustrates a button or link to display dropdown items for Posting App Menu Item **8822** and Publishing App Menu Item **8824** menus. The element "G" **8848** illustrates a button or link to display dropdown items for Sort **8860**, Filter **8862**, Hide **8864**, Pin **8866**, Prioritize **8868**, Group **8870**, Ignore **8872**, and Trend **8874** menus.

[0328] Activating Posting App Menu Item **8822** menu displays the screen for Post Message **9100** in FIG. **91**.

[0329] Activating Publishing App Menu Item **8824** menu displays the screen for Publish Message **8900** in FIG. **89** or the screen for Publish Message Smart Contracts **9000** in FIG. **90**.

[0330] Activating Search App Menu Item **8826** menu displays the search screen to search Message Board **8800** content.

[0331] Activating Sort **8860** menu displays the sort screen for sort customization of Message Board **8800** content. Sort customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for sorting content.

[0332] Activating Filter **8862** menu displays the sort screen for filter customization of Message Board **8800** content. Filter customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for filtering content.

[0333] Activating Hide **8864** menu displays the hide screen for hide customization of Message Board **8800** content. Hide customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for hiding content.

[0334] Activating Pin **8866** menu displays the pin screen for pin customization of Message Board **8800** content. Pin customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for pinning content.

[0335] Activating Prioritize **8868** menu displays the prioritize screen for priority customization of Message Board **8800** content. Priority customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for prioritizing content.

[0336] Activating Group **8870** menu displays the group screen for group customization of Message Board **8800** content. Group customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for grouping content.

[0337] Activating Ignore **8872** menu displays the ignore screen for ignore customization of Message Board **8800** content. Ignore customizations can also be stored in Social Media System **106** in FIG. **1** and utilized by Social Media System **106** in FIG. **1** for the ignoring content.

[0338] Activating Trend **8844** menu displays the trend screen for trend customization of Message Board **8800**. Trend customizations can also be stored in and utilized by Social Media System **106** in FIG. **1**.

[0339] Activating Connection **8846** menu displays the connection screen for connection management and settings. Connection management and settings can also be stored in and utilized by Social Media System **106** in FIG. **1**.

[0340] The figure is not drawn to scale. In one embodiment of the invention, the elements illustrate their location relative to other elements. In another embodiment of the invention, the elements may have different locations.

[0341] FIG. **89** illustrates the Publish Message **8900** user interface elements for a published message.

[0342] The Message Header **8812** contains the mention @User **104** at element **8902**, the user type "U" element **8904**, the user type "U" element **8904**, the user associations "A-1" element **8906**, the user associations "A-2" element **8908**, the user associations "A-N" element **8910**, the content difference notification "D" element **8912**, the publisher icon "P" element **8914**, the content type "C" element **8916**, the pinned "Z" element **8918**, and the priority "S" element **8919**.

[0343] The ellipse between element **8908** and element **8910** indicate that there can be an unlimited list of user associations. User associations have a graphic illustrating the type association. User associations include employer, professional, union, civic, etc. membership or relationships. As an example, a graphic illusion for an employer association could be the employer's logo.

[0344] Content difference notification "D" element **8912** indicates that content has changed. Different graphic illus-

trations indicate the type of change. Activating the content difference notification "D" element **8912** causes the Message Board **8800** to display an overlay or difference screen that displays the history of the content changes, the details for each change, and comparison tools.

[0345] Pinned "Z" element **8918** indicates a "pinned" message that is placed on top of all unpinned messages in the Message Board **8800** and has a graphic illustrating a pushpin emoji. Priority "S" element **8919** indicates a "priority" message that is placed on top of all pinned and unpinned messages in the Message Board **8800** and has a graphic illustrating a sparkling emoji. The more sparkles, the higher the priority. Ignored "I" element **8921** indicates an "ignored" message and is illustrated by a "talk to the hand" emoji.

[0346] Message Content **8816** illustrates content elements and content changed elements. Element **8920** illustrates text content, and element **8922** illustrates text content with a double strikethrough. Element **8922** gives a visual indicator in the content to the reader that the content text has changed. Element **8922** is actionable. If a user clicks on the strikethrough text, the Message Board **8800** displays an overlay or difference screen that displays the history of the content changes, the details for each change, and comparison tools.

[0347] Element **8924** illustrates a picture for content, and element **8926** illustrates a circle that encompasses the changes in the picture. The graphic area has the word "Changed" or an icon as a graphics overlay to indicate to the user that the content has changed. Element **8926** is actionable. If a user clicks on or in the circle, the Message Board **8800** displays an overlay or difference screen that displays the history of the content changes, the details for each change, and comparison tools.

[0348] Element **8928** illustrates a video for content, and element Video Play Back Bar **8930** illustrates a common video play back bar to control playback. The vertical line segment at element **8932** in the video playback bar indicates the location of changes in the video content. Clicking on element **8932** takes the user to the location of the video content change. The changed video content has the word "Changed" or an icon as a graphics overlay to indicate to the user that the content has changed. Clicking the video player element **8928** while "changed" content is in context causes the Message Board **8800** to display an overlay or difference screen that displays the history of the content changes, the details for each change, and comparison tools.

[0349] Message Footer **8818** illustrates trending "T" element **8934**, rhetoric "R" element **8936**, and endorsement "E" element **8938**. Element **8934** is actionable. If a user clicks on element **8934**, the Message Board **8800** displays an overlay or trending screen that displays the trending information about the content. Trending "T" element **8934** is illustrated by a trend emoji.

[0350] Element **8936** is actionable. If a user clicks on element **8936**, the Message Board **8800** displays an overlay or rhetoric screen that displays the rhetoric information about the content or enables the user to participate in the rhetoric features and functions. Rhetoric "R" element **8936** is illustrated by a rhetoric emoji.

[0351] Element **8938** is actionable. If a user clicks on element **8938**, the Message Board **8800** displays an overlay or trending screen that displays the endorsement information for the content. Endorsement displays are actionable and the provide analytics data. Endorsement "E" element **8938** is illustrated by an endorsement emoji. Message Content **8816** displays the endorsement popup banner as a graphic overlay.

[0352] Some elements allow for hard press or context menus to provide additional features.

[0353] A hard press of the mention @User **104** at element **8902** causes the Message Board **8800** to display the profile screen for User **104** in FIG. **1**.

[0354] A hard press of the user associations "A-1" element **8906**, the user associations "A-2" element **8908**, or the user associations "A-N" element **8910** causes the Message Board **8800** to display the profile screen for the association.

[0355] A hard press of the content difference notification "D" element **8912** toggles on and off the differencing display features for content in the Message Content **8816** display area.

[0356] A hard press of the publisher icon "P" element **8914** causes the Message Board **8800** to display the profile screen for the publisher.

[0357] A hard press of the content type "C" element **8916** causes the Message Board **8800** to display the content details screen to provide complete traceability and transparency about the content as well as content type, see FIG. **7**, Publishable Content Types **3700**, license, copyright, subject headings, subdivisions, classifications and catalog information. See FIG. **29**, License **2914**, Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922**, and Catalog **2924**.

[0358] A hard press of the pinned "Z" element **8918** toggles on and off the pinned status of the Published Message **8900**.

[0359] A hard press of the priority "S" element **8919** enables users to select the number of sparkles to indicate the relative priority status of the Published Message **8900**.

[0360] A hard press of the Ignored "I" element **8921** toggles on and off ignore status of the Published Message **8900**. A soft press of the Ignored "I" element **8921** toggles on and off the Message Content **8816** display area. This action is customizable, whereby all ignored messages are affected or a single ignored message is affected.

[0361] FIG. **90** illustrates the Publish Message Smart Contracts **9000** user interface elements for a published message with smart contract elements.

[0362] The Message Content **8816** element contains the Smart Contracts **9002** element. The Smart Contracts **9002** element contains the Smart Contract Forms **9004**, Smart Contract Validation **9006**, Smart Contract Workflow **9008**, Smart Contract Payments **9010**, Smart Contract Third Party **9012**, Smart Contract Markup **9014**, Smart Contract Scripts **9016**, Smart Contract Data **9018**, Smart Contract Events **9020**, and Smart Contract Core **9022** elements.

[0363] The Smart Contracts **9002** element enable smart contract features and functionality in the Message Board **8800**.

[0364] FIG. **91** illustrates the Post Message **9100** user interface elements for a post message.

[0365] The Message Header **8812** contains the content version "V" element **9102**.

[0366] The Message Footer **8818** contains the read only "R" element **9104**, the re-share "S" element **9106**, the bump "B" element **9108**, the download "D" element **9110**, the "for your eyes only" "E" element **9112**, the "set time limit" "T" element **9114**.

[0367] The read only "R" element **9104** indicates that the post message is read only. The message cannot be re-shared, downloaded or commented on.

[0368] The re-share "S" element **9106** indicates that users can re-share the post message.

[0369] The bump "B" element **9108** indicates the post message to be redistributed to users.

[0370] The download "D" element **9110** indicates that users can download the post message.

[0371] The "for your eyes only" "E" element **9112** is an indicator that lets users know that the post message contains private, confidential, or sensitive information.

[0372] The "set time limit" "T" element **9114** enables users to set a delete timestamp wherein the message is auto deleted by their FIG. **1**, Social Media System **106**.

[0373] FIG. **92** illustrates the Ad Content Display **9200** user interface elements for an ad message.

[0374] Ad Smart Contract **9202** enables users to initialize a transaction within the ad itself.

[0375] Ad Action **9204** enables users to take an action within the ad, such as flagging or printing a circular ad for their next visit to the grocery store.

[0376] Advertiser Profile Access **9206** enables users to see the advertiser's profile in the directory.

[0377] FIG. **93** is a block diagram of Social Media App(s) **110** which is comprised of App Modules **1300**, Publishable Content Types **3700**, App Module Client Proxy **1414** and Core Modules **700**. App Modules **1300** consists of Message Board App Module **1330** which contains Message Board **8800**. App Modules **1300** interacts with Publishable Content Types **3700**, App Module Client Proxy **1414** and Core Modules **700**. App Module Client Proxy **1414** interacts with Core Modules **700**. App Module Client Proxy **1414** and Core Modules **700** connect to Social Media System APIs **902**, Platform System APIs **1702**, Public Archivists **116**, Public Auditors **114** and Third Party Services **112** via Network(s) **108**. Social Media System APIs **902** and Platform System APIs **1702** utilize Chronicle **2100** which is comprised of Chronicle Record **2000** which consists of Connection Graph **6000**, Ad Graph **6300**, Content Graph **2024**, and State Graph **2030**. FIG. **93** also includes Content **2912**, License **2914**, Copyright **2916**, Subject Headings **2918**, Subdivisions **2920**, Classification **2922**, and Catalog **2924**.

[0378] This diagram illustrates Message Board **8800** and its relationship to Message Board App Module **1330**, App Modules **1300**, and Social Media App(s) **110**. It illustrates Social Media App(s) **110**'s relationship to Publishable Content Types **3700**, App Module Client Proxy **1414**, and Core Modules **700**. It illustrates how Chronicle **2100** and its contents are accessed by Social Media System APIs **902** and Platform System APIs **1702** which are then accessed by App Module Client Proxy **1414** and Core Modules **700** via Network(s) **108**. It illustrates how App Module Client Proxy **1414** and Core Modules **700** via Network(s) **108** interface with Public Archivists **116**, Public Auditors **114**, and Third Party Services **112**.

[0379] FIG. **94** is a block diagram of Chronicle Record **2000** which is comprised of Index Graph **9400**. Index Graph **9400**, which descends from Base Graph **2050** in FIG. **20**, consists of Index Graph Schema **9402**, Index Graph Schema Version **9404**, Index Graph Hash **9406**, and Index Graph Signature **9408**. It also has Index Graph Collection **9410** which consists of Node(s) **9412** and Edge(s) **9440**. Node(s) **9412** contains Index **9414**, Index Feature **9416**, Index Category **9418**, Meta Data Index **9420**, Context Index **9422**, Distinction Index **9424**, Hashtag Index **9426**, Mention Index **9428**, Full-Text Index **9430**, and State **2610**. Edge(s) **9440** contains Index Probability **9442**. Index **9414** has the properties Index Id **9450**, Index Timestamp **9452**, and Index Cost **9454**. This diagram illustrates that each time a new Chronicle Record **2000** is created, post consensus, an Index Graph **9400** is generated as part of the Chronicle Record **2000** before being added to Chronicle **2100** in FIG. **21**.

[0380] FIG. **95** is a block diagram of Chronicle Record **2000** which is comprised of Index Features **9500** which consists of Hashtag Trending **9502** and Mention Trending **9504**. This diagram details two possible features utilized by Machine Learning System Modules **828** in FIG. **8** to create Index Probability **9442** in relationship to Distinction Index **9424** in FIG. **94**.

[0381] FIG. **96** is a block diagram of Index Algorithms **9600** which is comprised of Index Meta Data Algorithms **9602**, Index Context Algorithms **9604**, Index Distinction Algorithms **9606**, Index Hashtag Algorithms **9608**, Index Mention Algorithms **9610**, Index Full-Text Algorithms **9612**. Index Algorithms **9600** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Core Modules **700**. Index Categories **9614** includes Index Machine Learning **9616**, Index Features **9500**, and Index Classifier **9620**. Index Categories **9614** is associated with Machine Learning System Modules **828**. Chronicle **2100** includes Chronicle Record **2000** which consists of Content Graph **2024**, Index Graph **9400**, Directory Graph **2034**, and State Graph **2030**. Chronicle **2100** is associated with Machine Learning System Modules **828**, AI System Modules **804**, Analytics System Modules **806**, Third Party System Modules **844**, and Index Algorithms **9600**.

[0382] Index Algorithms **9600** utilizes Index Features **9500** and select Node(s) **9412** within Index Graph Collection **9410** in FIG. **94**. It is intended to be used with data related to metadata, context, distinction, hashtag, mention, and full-text in conjunction with Machine Learning System Modules **828** and Index Categories **9614**. Index Algorithms **9600** could also work in conjunction with AI System Modules **804**, Analytics System Modules **806**, and Third Party System Modules **844** which may provide additional index systems or functionality that can be integrated into Index Algorithms **9600**. Core Modules **700** provides the cross-cutting functionality for Index Algorithms **9600**. In particular, all interactions with the elements in FIG. **96** utilize Telemetry Core Module **714**, Logging Core Module **710**, and Exception Handling Core Module **702** in FIG. **7**. Telemetry Core Module **714** in FIG. **7** provides auditing insight into every interaction that can be audited and reported on vis a vie Audit System Modules **810** on FIG. **8**. Machine Learning System Modules **828** utilizes Index Categories **9614** consisting of Index Machine Learning **9616** which is based on a training set of data containing instances whose features and assigned category membership is known, Index Features **9500** which are derived from system composition profiles and their resulting performance metrics from telemetry data managed by Telemetry System **226** in FIG. **2**, and Index Classifier **9620** which is a classification algorithm that maps a new instance's system profile data to a category.

[0383] This diagram illustrates that Index Algorithms **9600** collectively can be used by Machine Learning System Modules **828**, AI System Modules **804**, Analytics System

Modules **806**, and Third Party System Modules **844**. All of these modules have access to Chronicle **2100** and its contents. Machine Learning System Modules **828** also utilizes Index Categories **9614**.

[0384] FIG. **97** is a block diagram of Index System Modules **874** which is comprised of Index System Module **9700**, Index Features System Module **9702**, Index Category System Module **9704**, Index Meta Data System Module **9706**, Index Context System Module **9708**, Index Distinction System Module **9710**, Index Hashtag System Module **9712**, Index Mention System Modules **9714**, Index Full-Text System Module **9716**, Index State System Module **9718**, and Index Probability System Module **9720**. Index System Modules **874** interfaces with Platform Systems **102**, Chronicle **2100**, Index Algorithms **9600**, and Core Modules **700**. Platform Systems **102**, which consists of Index System **252** and Index Platform System Modules **1652**, utilizes Chronicle **2100** as well as Index Algorithms **9600**. Index Algorithms **9600** interfaces with Index System Modules **874**, Platform Systems **102**, and Chronicle **2100**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Content Graph **2024**, Index Graph **9400**, Directory Graph **2034**, and State Graph **2030**. Core Modules **700** provides all the cross-cutting functionality for Index System Modules **874** and Platform Systems **102**. This diagram illustrates Index System Modules **874** as it relates to Platform Systems **102**, Index Algorithms **9600**, Core Modules **700**, and Chronicle **2100**. It also illustrates Platform Systems **102**'s relationship to Index Algorithms **9600**, Chronicle **2100** and Core Modules **700**.

[0385] FIG. **98** is a block diagram of Index **9800** which illustrates the indexing functionality of the platform. Index **9800** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Content Graph **2024**, Index Graph **9400**, and State Graph **2030**. Platform System **102** utilizes Chronicle System Modules **812**, Index System Modules **874**, Index System **252**, and Index Platform System Modules **1652**. Platform Systems **102** connects to Social Media System **106-1** for User **104-1**, Social Media System **106-2** for User **104-2**, Social Media System **106**-N for User **104**-N via Network(s) **108**. User **104-1**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, Index System Modules **874**, and Chronicle System Modules **812**. User **104-2**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, Index System Modules **874**, and Chronicle System Modules **812**. User **104**-N's Social Media System **106**-N utilizes Chronicle System Modules **812**, Index System Modules **874**, and Chronicle System Modules **812**. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. Index **9800** is also comprised of Core Modules **700** which provides the cross-cutting functionality for Platform Systems **102**, Social Media System **106-1** to Social Media System **106**-N, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all indexing functionality.

[0386] This diagram illustrates how Index **9800** is utilized by Distributed Social Media Network **300** in FIG. **3**. Oftentimes, the topic of indexing gets collapsed with searches, especially since searches have an indexing component. However, various embodiments of the present technology separate indexing from searching, because indexing happens when the content is committed to Chronicle **2100** in FIG. **21**. As a result, index information is always current and does not need to be merged. If a content item changes, a new Chronicle Record **2000** in FIG. **20** is created, and therefore new index information is created and added to the new record.

[0387] Indexing is distributed because every Social Media System **106** in FIG. **1** has an indexing service. This reinforces the overarching theme of scaling and parallelism in Distributed Architecture **100** in FIG. **1** and solves the problems often found when searching web content.

[0388] Indexing on the platform also benefits from the scalability and parallelism of Consensus by Conference **3800** in FIG. **38**, specifically the utilization of Publisher Consensus System Category Classification **3816**, the multitude of consensus networks, and the multi-threading processing ability of Social Media System **106** in FIG. **1**. It is actually in the economic interest of Publisher **3502** in FIG. **35** to document specific aspects of their content for review, because if they make the content relevant and easy to find, they will sell more of it. See Users Get Paid for their Content **3628** in FIG. **36**.

[0389] In sum, the platform utilizes Index System **252**, Index Platform System Modules **1652**, and Index System Modules **874** in conjunction with Chronicle **2100** and a multitude of users to offer indexing that is uniquely accurate and deep. This enables users to locate content with great efficiency and speed.

[0390] FIG. **99** is a block diagram of Chronicle Record **2000** which is comprised of Search Graph **9900**. Search Graph **9900**, which descends from Base Graph **2050** in FIG. **20**, consists of Search Graph Schema **9902**, Search Graph Schema Version **9904**, Search Graph Hash **9906**, and Search Graph Signature **9908**. It also has Search Graph Collection **9910** which consists of Node(s) **9912** and Edge(s) **9940**. Node(s) **9912** contains Search **9914**, Search Location **9916**, State **2610**, and Index **9414**. This diagram represents the Chronicle Record **2000** information for Search Graph **9900**. Note that Search Graph **9900** is not separate or on its own. State **2610** and Index **9414** can pull in other nodes from other graphs.

[0391] FIG. **100** is a block diagram of Search System Modules **840** which is comprised of Search System Module **3200**, Search Location System Module **10000**, Search State System Module **10002**, and Search Index System Module **10004**. Search System Modules **840** interfaces with Platform Systems **102**, Chronicle **2100**, and Core Modules **700**. Platform Systems **102**, which consists of Search System **220** and Search Platform System Modules **1622**, utilizes Chronicle **2100**. Chronicle **2100** is comprised of Chronicle Record **2000** which consists of Directory Graph **2034**, Content Graph **2024**, Search Graph **9900**, State Graph **2030** and Connection Graph **6000**. Core Modules **700** provides all the cross-cutting functionality for Search System Modules **840** and Platform Systems **102**. This diagram illustrates Search System Modules **840** connecting to Platform Systems **102** and Core Modules **700**. It also illustrates how Search System Modules **840** Platform Systems **102** relate to Chronicle **2100**.

[0392] FIG. **101** is a block diagram of Search **10100** which illustrates the search functionality of the platform. Search **10100** is comprised of Chronicle **2100** which consists of Chronicle Record **2000** which contains Directory Graph **2034**, Content Graph **2024**, Search Graph **9900**, State Graph **2030**, and Connection Graph **6000**. Platform System **102**

utilizes Chronicle System Modules **812**, Search Platform System Modules **1622**, and Search Content **10102**. Platform Systems **102** connects to Social Media System **106-1** for User **104-1**, Social Media System **106-2** for User **104-2**, Social Media System **106**-N for User **104**-N via Network(s) **108**. User **104-1**'s Social Media System **106-1** utilizes Chronicle System Modules **812**, Search System Modules **840**, and Search Content **10102-1**. User **104-2**'s Social Media System **106-2** utilizes Chronicle System Modules **812**, Search System Modules **840**, and Search Content **10102-2**. User **104**-N's Social Media System **106**-N utilizes Chronicle System Modules **812**, Search System Modules **840**, and Search Content **10102**-N. The ellipse between Social Media System **106-2** and Social Media System **106**-N illustrates that there are N number of social media systems for every user on the network. Search **10100** is also comprised of Chronicle Search Engine **10104** as well as Core Modules **700** which provides the cross-cutting functionality for Platform Systems **102**, Social Media System **106-1** to Social Media System **106**-N, App Modules **1300**, System Modules **800**, and Platform System Modules **1600** as well as all search functionality.

[0393] This diagram illustrates the use of Search System Modules **840** and Search Platform System Modules **1622** for Search **10100**. Platform System **102** also uses Search System **220** in FIG. **2** and Search App Module **1340** in FIG. **13**. All search related modules and systems utilize Chronicle **2100** for search as well as for their own storage use. Search **10100** is optimized for easy indexing, using Index System **252** in FIG. **2**, Index Platform System Modules **1652** in FIG. **16**, Index System Modules **874** in FIG. **8**, and Index App Module **1374** in FIG. **13**. These index modules also facilitate the searching of Chronicle **2100**. Search Content **10102** to Search Content **10102**-N represents all the different search content accessed by User **104-1** to User **104**-N.

[0394] FIG. **102** is a block diagram of Consensus by Virus Algorithm **10200** which illustrates another workflow for determining consensus. Consensus by Virus Algorithm **10200** is associated with New Chronicle Record **4000**, Chronicle System **206**, System Modules **800**, and Core Modules **700** which provide all the cross-cutting functionality required for the consensus workflow. The workflow for Consensus by Virus Algorithm **10200** begins with Precondition **10202**, which includes Each Publisher in Category Classification **10204**, Calculate Nearest Neighbors **10206** which is associated with Nearest Neighbor Count **10208**, Distributed Minimum Spanning Tree of Nearest Neighbors **10210**, and Setup Telephone Gossip Network with Nearest Neighbors **10212** which is associated to Max Network Count **10214**. Consensus Request **10216** leads to Generate Conference Coordinator **4002** and Coordinator Generates Virus and Virus Hash **10218**. Virus Hash **10224** consists of Record Hash **10226** and Vaccine Key **10228**. Next Coordinator Generates Sessions and Attendees for Each Session **10222** which is associated with Session Count **10220**. Then Attendees Spread Virus Networks **10230**, Infected Attendees Calculate Record Hash **10232**, and Infected Attendees Exchanges Correct Record for Vaccine Key **10234**. This diagram illustrates that Consensus by Virus Algorithm **10200** utilizes elements from Consensus by Conference **4200** in FIG. **42** and introduces a virus to compel consensus, whereby all attendees are infected with a virus. In order for attendees to get a vaccine key to disable the virus, they have to calculate and exchange the correct record hash.

[0395] FIG. **103** is a block diagram of App Menu Items **8830** which is comprised of Ad App Menu Item **10302**, AI App Menu Item **10304**, Analytics App Menu Item **10306**, Archive App Menu Item **10308**, Audit App Menu Item **10310**, Chronicle App Menu Item **10312**, Connection App Menu Item **10314**, Content App Menu Item **10316**, Directory App Menu Item **10318**, Distribution App Menu Item **10320**, Identity App Menu Item **10322**, Ledger App Menu Item **10324**, Licensing App Menu Item **10326**, Machine Learning App Menu Item **10328**, Message Board App Menu Item **10330**, Onboarding App Menu Item **10332**, Payment App Menu Item **10334**, Posting App Menu Item **8822**, Publishing App Menu Item **8824**, Search App Menu Item **8826**, Subscription App Menu Item **10342**, Third Party App Menu Items **10344**, Wallet App Menu Item **10346**, Endorsement App Menu Item **10348**, Compliance App Menu Item **10350**, Consensus App Menu Item **10352**, Notary App Menu Item **10354**, Certified Email Menu Item **10356**, Workflow App Menu Item **10358**, SDK App Menu Item **10360**, Copyright App Menu Item **10362**, Rhetoric App Menu Item **10364**, User Verification App Menu Item **10366**, Trending App Menu Item **10368**, Account App Menu Item **10370**, Content Verification App Menu Item **10372**, and Index App Menu Item **10374**. This diagram details all of the App Menu Items **8830** that become user interface screens, libraries, configurations, settings, etc. These menu items essentially represent all of the user interface features and functionality required to work with all aspects of Social Media App(s) **110** in FIG. **1**.

[0396] FIG. **104** is a block diagram of System Menu Items **8832** which is comprised of Ad System Menu Item **10402**, AI System Menu Item **10404**, Analytics System Menu Item **10406**, Archive System Menu Item **10408**, Audit System Menu Item **10410**, Chronicle System Menu Item **10412**, Connection System Menu Item **10414**, Content System Menu Item **10416**, Directory System Menu Item **10418**, Distribution System Menu Item **10420**, Identity System Menu Item **10422**, Ledger System Menu Item **10424**, Licensing System Menu Item **10426**, Machine Learning System Menu Item **10428**, Message Board System Menu Item **10430**, Onboarding System Menu Item **10432**, Payment System Menu Item **10434**, Posting System Menu Item **10436**, Publishing System Menu Item **10438**, Search System Menu Item **10440**, Subscription System Menu Item **10442**, Third Party System Menu Item **10444**, Wallet System Menu Item **10446**, Endorsement System Menu Item **10448**, Compliance System Menu Item **10450**, Consensus System Menu Item **10452**, Notary System Menu Item **10454**, Certified Email System Menu Item **10456**, Workflow System Menu Item **10458**, SDK System Menu Item **10460**, Copyright System Menu Item **10462**, Rhetoric System Menu Item **10464**, User Verification System Menu Item **10466**, Trending System Menu Item **10468**, Account System Menu Item **10470**, Content Verification System Menu Item **10472**, and Index System Menu Item **10474**. This diagram details all of the System Menu Items **8832** that become user interface screens, libraries, configurations, settings, etc. These menu items essentially represent all of the user interface features and functionality required to work with all aspects of Social Media System **106** in FIG. **1**.

[0397] FIG. **105** is a block diagram of Platform System Menu Items **8834** which is comprised of API Platform System Menu Item **10502**, Archive Platform System Menu Item **10504**, Audit Platform System Menu Item **10506**,

Chronicle Platform System Menu Item **10508**, Directory Platform System Menu Item **10510**, Identity Platform System Menu Item **10512**, Ledger Platform System Menu Item **10514**, Onboarding Platform System Menu Item **10516**, Payment Platform System Menu Item **10518**, Platform Management System Menu Item **10520**, Search Platform System Menu Item **10522**, Third Party Platform System Menu Item **10524**, Account Platform System Menu Item **10526**, Telemetry Platform System Menu Item **10528**, User Verification Platform System Menu Item **10530**, Connection Platform System Menu Item **10532**, Consensus Platform System Menu Item **10534**, SDK Platform System Menu Item **10536**, AI Platform System Menu Item **10538**, Analytics Platform System Menu Item **10540**, Machine Learning Platform System Menu Item **10542**, Trending Platform System Menu Item **10544**, Endorsement Platform System Menu Item **10546**, Ad Platform System Menu Item **10548**, Content Verification Platform System Menu Item **10550**, Index Platform System Menu Item **10552**, and Content Platform System Menu Item **10554**. This diagram details all of the Platform System Menu Items **8834** that become user interface screens, libraries, configurations, settings, etc. These menu items essentially represent all of the user interface features and functionality required to work with all aspects of Platform Systems **102** in FIG. **1**.

[0398] The corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims below are intended to include any structure, material, or act for performing the function in combination with other claimed elements as specifically claimed. The description of the present disclosure has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the present disclosure in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art without departing from the scope and spirit of the present disclosure. Exemplary embodiments were chosen and described in order to best explain the principles of the present disclosure and its practical application, and to enable others of ordinary skill in the art to understand the present disclosure for various embodiments with various modifications as are suited to the particular use contemplated.

[0399] Aspects of the present disclosure are described above with reference to flowchart illustrations and/or block diagrams of methods, apparatus (systems) and computer program products according to embodiments of the present disclosure. It will be understood that each block of the flowchart illustrations and/or block diagrams, and combinations of blocks in the flowchart illustrations and/or block diagrams, can be implemented by computer program instructions. These computer program instructions may be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions, which execute via the processor of the computer or other programmable data processing apparatus, create means for implementing the functions/acts specified in the flowchart and/or block diagram block or blocks.

[0400] These computer program instructions may also be stored in a computer readable medium that can direct a computer, other programmable data processing apparatus, or other devices to function in a particular manner, such that the instructions stored in the computer readable medium produce an article of manufacture including instructions which implement the function/act specified in the flowchart and/or block diagram block or blocks.

[0401] The computer program instructions may also be loaded onto a computer, other programmable data processing apparatus, or other devices to cause a series of operational steps to be performed on the computer, other programmable apparatus or other devices to produce a computer implemented process such that the instructions which execute on the computer or other programmable apparatus provide processes for implementing the functions/acts specified in the flowchart and/or block diagram block or blocks.

[0402] While this technology is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail several specific embodiments with the understanding that the present disclosure is to be considered as an exemplification of the principles of the technology and is not intended to limit the technology to the embodiments illustrated.

[0403] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the technology. As used herein, the singular forms "a", "an" and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

[0404] It will be understood that like or analogous elements and/or components, referred to herein, may be identified throughout the drawings with like reference characters. It will be further understood that several of the figures are merely schematic representations of the present disclosure. As such, some of the components may have been distorted from their actual scale for pictorial clarity.

[0405] The flowchart and block diagrams in the Figures illustrate the architecture, functionality, and operation of possible implementations of systems, methods and computer program products according to various embodiments of the present disclosure. In this regard, each block in the flowchart or block diagrams may represent a module, segment, or portion of code, which comprises one or more executable instructions for implementing the specified logical function (s). It should also be noted that, in some alternative implementations, the functions noted in the block may occur out of the order noted in the figures. For example, two blocks shown in succession may, in fact, be executed substantially concurrently, or the blocks may sometimes be executed in the reverse order, depending upon the functionality involved. It will also be noted that each block of the block diagrams and/or flowchart illustration, and combinations of blocks in the block diagrams and/or flowchart illustration, can be implemented by special purpose hardware-based systems that perform the specified functions or acts, or combinations of special purpose hardware and computer instructions.

[0406] In the following description, for purposes of explanation and not limitation, specific details are set forth, such as particular embodiments, procedures, techniques, etc. in order to provide a thorough understanding of the present invention. However, it will be apparent to one skilled in the

art that the present invention may be practiced in other embodiments that depart from these specific details.

[0407] Reference throughout this specification to "one embodiment" or "an embodiment" means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, the appearances of the phrases "in one embodiment" or "in an embodiment" or "according to one embodiment" (or other phrases having similar import) at various places throughout this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner in one or more embodiments. Furthermore, depending on the context of discussion herein, a singular term may include its plural forms and a plural term may include its singular form. Similarly, a hyphenated term (e.g., "on-demand") may be occasionally interchangeably used with its non-hyphenated version (e.g., "on demand"), a capitalized entry (e.g., "Software") may be interchangeably used with its non-capitalized version (e.g., "software"), a plural term may be indicated with or without an apostrophe (e.g., PE's or PEs), and an italicized term (e.g., "N+1") may be interchangeably used with its non-italicized version (e.g., "N+1"). Such occasional interchangeable uses shall not be considered inconsistent with each other.

[0408] Also, some embodiments may be described in terms of "means for" performing a task or set of tasks. It will be understood that a "means for" may be expressed herein in terms of a structure, such as a processor, a memory, an I/O device such as a camera, or combinations thereof. Alternatively, the "means for" may include an algorithm that is descriptive of a function or method step, while in yet other embodiments the "means for" is expressed in terms of a mathematical formula, prose, or as a flow chart or signal diagram.

[0409] The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of the invention. As used herein, the singular forms "a", "an" and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise. It will be further understood that the terms "comprises" and/or "comprising," when used in this specification, specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

[0410] It is noted at the outset that the terms "coupled," "connected", "connecting," "electrically connected," etc., are used interchangeably herein to generally refer to the condition of being electrically/electronically connected. Similarly, a first entity is considered to be in "communication" with a second entity (or entities) when the first entity electrically sends and/or receives (whether through wireline or wireless means) information signals (whether containing data information or non-data/control information) to the second entity regardless of the type (analog or digital) of those signals. It is further noted that various figures (including component diagrams) shown and discussed herein are for illustrative purpose only, and are not drawn to scale.

[0411] While specific embodiments of, and examples for, the system are described above for illustrative purposes, various equivalent modifications are possible within the scope of the system, as those skilled in the relevant art will recognize. For example, while processes or steps are presented in a given order, alternative embodiments may perform routines having steps in a different order, and some processes or steps may be deleted, moved, added, subdivided, combined, and/or modified to provide alternative or sub-combinations. Each of these processes or steps may be implemented in a variety of different ways. Also, while processes or steps are at times shown as being performed in series, these processes or steps may instead be performed in parallel, or may be performed at different times.

[0412] While various embodiments have been described above, it should be understood that they have been presented by way of example only, and not limitation. The descriptions are not intended to limit the scope of the invention to the particular forms set forth herein. To the contrary, the present descriptions are intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims and otherwise appreciated by one of ordinary skill in the art. Thus, the breadth and scope of a preferred embodiment should not be limited by any of the above-described exemplary embodiments.

What is claimed is:

1. A system comprising,

a processor which generates a system categories, wherein the processor further:

utilizes a training data which contains instances with known features and assigned system category;

utilizes a telemetry system for system composition profile, performance metric and workload composition data to derive features;

utilizes a classifier algorithm to generate the system categories;

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